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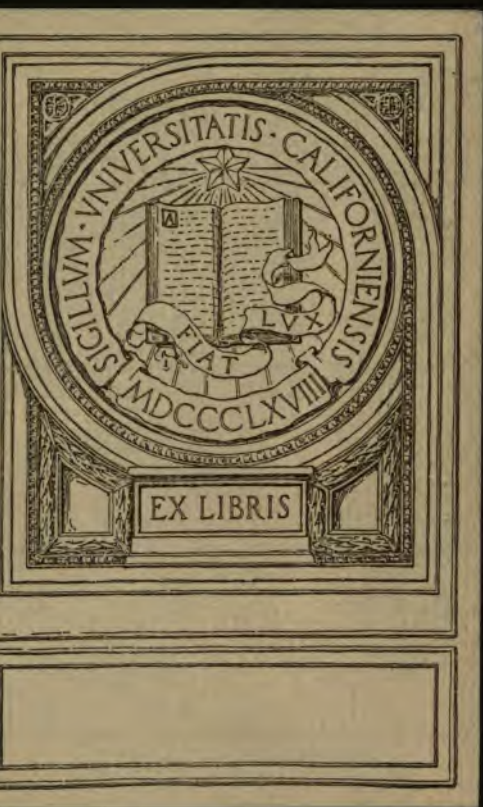
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The LUNCH HOUR AT SCHOOL



Health Education No. 7
DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION
1920



UNIV. OF
CALIFORNIA

THE LUNCH HOUR AT SCHOOL

BY
KATHARINE A. FISHER

Prepared for the BUREAU OF EDUCATION *by the*
CHILD HEALTH ORGANIZATION OF AMERICA

Illustrations by
JESSIE GILLESPIE



WASHINGTON
GOVERNMENT PRINTING OFFICE
1920

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THE LUNCH HOUR AT SCHOOL

By
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PREPARED FOR THE BUREAU OF EDUCATION BY THE
CHILD HEALTH ORGANIZATION OF AMERICA

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FOREWORD

The campaign for child health has given a new impetus to the school-lunch movement in America. Teachers are beginning to regard the school lunch as a health project that should be given a significant place in the curriculum. This authoritative presentation of the organization of school lunches is therefore recommended to teachers and all others working in the interest of child health. Before this bulletin was written a survey of school lunches in various parts of the country was made, and much of the information received is here included.

It has not been possible, within the limits of one bulletin, to discuss the administration of school lunch systems in large cities, as these involve problems requiring special consideration.



School Lunches and Health: Education

"So the Bird, whose name was Education, started on his journey. He took his brother Rumor with him to help tell the Teachers, because there were a great many Teachers to be told about the Childrens' Health."

—Cho-Cho and the Health Fairy.

THE school lunch is rapidly becoming a recognized part of our school system, and should therefore be established through the use of school funds, with the overhead expenses of conducting the lunch supplied from the same source. The day of the concessionaire is passing, and it can not pass too quickly, as it turns the lunch into a commercial enterprise, with the welfare of the children not the first and only consideration. No school lunch should be conducted at a profit. Even in the larger schools the receipts from the lunches should at the most only cover the cost of the raw food, of service, and other running expenses.

A careful study of school-lunch problems should be made in every school starting such work, as it is of the greatest importance that the lunch should be developed along the broadest possible lines. The co-operation and interest of the entire community are necessary, and the interest of the school boys and girls themselves should be aroused and maintained in every conceivable way. Good organization is necessary for successful work. The problems of organization and administration are here discussed, while the food problems themselves are not considered in detail. Valuable references on diet are available, and a selected list of these is given on page 60 for the benefit of teachers who wish to inform themselves in regard to all aspects of the work. *The knowledge, the interest, and the enthusiasm of the teacher will determine the success of the undertaking.*

No
school lunch
should be
conducted
for
profit





The lunch work should be a vital part of the health teaching in every school. The children who stay at school for lunch need hot food at the noon hour, but that is not all. An excellent opportunity is offered for instruction and training in right food habits, and teachers should take advantage of this to the fullest extent possible. The lunch at school should never become a perfunctory matter. It is not just a question of providing food, but is a means of teaching the boys and girls *to eat in the right way the foods that are good for them.*

Through the school lunch teachers may work very closely with the homes of the community and should know something of home conditions in their own districts. Common errors in the feeding of children are frequently revealed when teachers secure the interest and cooperation of the mothers.

The children may not be drinking their pint of milk a day.

Some children may come breakfastless to school.

In some homes the bowl of breakfast cereal may not be given its share of attention.

The diet may be lacking in vegetables.

Other children may be given tea and coffee freely and may be allowed to eat too much meat and pastry.

Tact and patience in securing the interest of both mothers and children will gradually correct these errors, and better conditions of nutrition will be established.

The knowledge of home conditions is particularly important among foreign-born families, who usually do not know how to adapt their national food habits to American conditions. We know comparatively little about the various national dishes and their preparation and we do not yet realize how these foreign dishes may

*Happiness
aids digestion*



contribute to our own dietaries. Miss Bertha Wood, of the Boston Dispensary Food Clinic, who has recently made an investigation of the diets of foreign-born families, feels very strongly that such studies are necessary in helping foreign-born mothers with their food problems. Where there is a fair representation of certain nationalities among the pupils, some of their national dishes should be served at school from time to time. It will please and interest both parents and children, and the former will be eager to supply recipes and information as to the preparation of the dishes.

Teachers need not be afraid of teaching food values. Calories, proteins, carbohydrates, and "vitamines" may be new terms for the children, but they can easily be made interesting ones. Lessons should be graphic and should appeal to the imagination. Posters, pictures, songs, and stories should be used freely. The Child Health Organization publishes some attractively illustrated booklets and bulletins which are a delight to all children. In Nebraska a physiology playlet, "How Joe's Lunch Disappeared," is sent out to the boys' and girls' clubs with the suggestion that the clubs use it as a part of their Achievement Day program, and other State colleges send out literature which will interest the children.

Principals of schools can do much in promoting an interest in food and diet throughout the school by including this subject in their talks at assembly periods. Where household science is taught, quite often only the girls receive instruction in food values and in diet. Both boys and girls need this, and the boys as well as the girls should take an active part in assisting with the lunch work.

Probably one of the most difficult things to accomplish is to persuade children to eat and like the foods which are best for them. Through mistaken kindness,

*Teaching
Food
Values*

*Training in
Better
Food
Habits*

7

*Boys should
take an active
part in assisting
with the
lunch work*





ignorance, or carelessness on the part of the home people they acquire likes and dislikes which become so firmly established with them that they seem at times impossible to change. It is most important that all foods served at school should be appetizing and attractive. In order to tempt the children to acquire a taste for vegetables, a resort to "camouflage" is sometimes necessary. The taste is more easily acquired through the use of full-flavored cream soups and purees instead of through the use of vegetables in more obvious forms. As stated above, a friendly cooperation with the parents should be carried on, as children must be impressed with the importance of eating the same types of food at home.

Special Nutrition Work for Undernourished Children

THIS is a problem closely related to, and, indeed, often a part of, the school lunch. Reports show that in some places hot lunches have been started to relieve conditions of malnutrition. One report states:

Among 184 children who were measured and weighed, 174 were 2 pounds or more under normal weight. These, in most cases, reported a diet of bread, macaroni, tea, coffee, and little or no milk. A hot lunch was started by the local home economics committee, the farm bureau having appropriated \$100 toward equipment.

This work should be carried on just as actively in the rural schools as in towns and cities, as investigations show a higher percentage of malnutrition among country children. Statistics concerning health defects of school children show a percentage in malnutrition of 16.6 for country children, compared with 7.65 for city children. These statistics are based on the re-



ports of over half a million children, and are published by the National Council of the Education Association and of the American Medical Association. All school-lunch work should be an important factor in reducing malnutrition, but special attention should undoubtedly be given to children who are seriously undernourished. The intelligent interest and cooperation of the parents are necessary here also, and expert aid and advice are essential. The work may be carried on under the supervision of the doctor and the school nurse. The following are some useful references on the conducting of nutritional classes:

How to Conduct a Nutrition Class. Charles Hendee Smith, M. D.—Child Health Organization, 156 Fifth Avenue, New York, N. Y. 11 cents.

Nutrition Clinics and Classes. Frank A. Manny.—Nutrition Clinics for Delicate Children, 44 Dwight Street, Boston, Mass. 10 cents.

Class Methods in Dietetic and Hygienic Treatment of Delicate Children in Pediatrics. W. R. P. Emerson, M. D.—Nutrition Clinics for Delicate Children, 44 Dwight Street, Boston, Mass. 10 cents.

Standardized Physical Examination. W. R. P. Emerson, M. D.—Nutrition Clinics for Delicate Children, 44 Dwight Street, Boston, Mass. 10 cents.

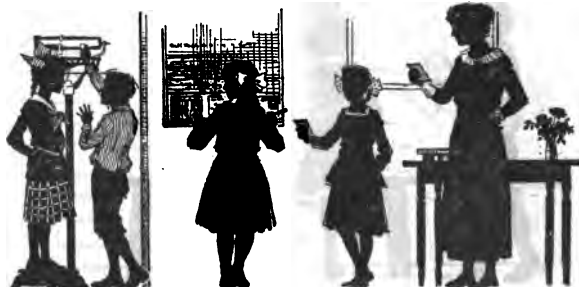
The Social Aspects of the School Lunch

THE eating of food has a social as well as a physiological aspect. The lunch hour at school may be made a cheery, orderly hour for the pupils; and, without unnecessary restraint, good deportment and table manners may be maintained. A visit to some schools during the lunch hour will convince one of the

Hot school lunches of special value to undernourished children

9

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importance of this. The room should be left in good order by the pupils, and dropping lunch papers or food on the floor, leaving these on the tables, or throwing them *at* instead of in the waste receptacles, need not be tolerated. Teaching pupils orderly habits and respect for school property is, indeed, an important factor in training for citizenship. One consolidated rural school reports:

Through the school lunch we are trying to find a means of helping our community and shall feel, when it becomes a mere mechanical process, that we have lost sight of one of our vital aims. We have already found it our greatest factor in socializing a school whose work was entirely apart from the children's interests.

The decorations and furnishings of the lunch room should be as attractive as possible, with surface finishes that are easily cared for. Plants and flowers add much and can be obtained in various ways.

*Correlation
with other
school
subjects*

The school lunch offers a rare opportunity for sound, spontaneous correlation of the nutrition and health work with other school subjects. The simple account keeping, in connection with the lunch, presents good problems in arithmetic. Applications to geography are very obvious when we consider the distribution of foodstuffs, and posters provide splendid scope for the art class.

Hygiene teaching should function very actively during the lunch hour, much more than it ~~now~~ does. Much difficulty is experienced in maintaining satisfactory standards in personal hygiene, as provisions for washing the hands are limited and in many cases entirely lacking, even in some city schools. In some of the more remote country districts all water used at the schools has to be carried there, sometimes from quite a distance. Naturally this water will not be used, to any great extent, for washing hands, and very little will



*Teaching
health habits
through
the school
lunch*

be available for washing lunch dishes. Some schools report that only flagrant cases of lack of cleanliness are given attention. From the Los Angeles elementary schools comes this encouraging report: "The teachers insist on all hands being washed before entrance to lunch counter; this is closely watched."



Securing Funds for the School Lunch

THE entire community should be brought to realize the value of the school lunch and of its possible far-reaching influence. Difficulty is sometimes experienced in securing funds for establishing a school lunch. This difficulty will very soon disappear, however, as the school lunch is rapidly coming to be considered a part of the regular school work. At present, funds for equipment and other initial expenses are not always supplied by the board of education. Various means of securing these have been adopted. Entertainments and "showers" have been given, and the interest of local organizations is frequently gained. The Parent-Teacher Association has made many a school lunch possible, and school lunch associations have financed and organized this work in a number of cities, the aim, no doubt, being to demonstrate the educational value of the work and so have the board of education eventually assume the responsibility. Promoting the work in this way has its advantages, as it may gain the sympathy and interest of a larger number of people in the community, and so be more of a community activity than if it were first established by the school authorities. Ultimately the school lunch should be under the direction of the school authorities, and all overhead expenses should be supplied from school funds.

In some schools water must be carried



Supplying Lunches to Poorer Children

PUPILS who can not afford to pay for the lunch at school should be especially considered. These cases should be investigated and it should not be merely a question of "free-feeding." Here the school nurse, as well as home visitors and other social-service workers, plays a most important part, as she is able to form the link between the school and the home. Reports show that in some schools these children are allowed to earn their lunch by assisting in the lunch-room. This is a good method if other children also assist, as otherwise it singles out the poor children and makes them objects of charity. If special financial provision is made for these children and they can be given checks *entirely unknown to the other children*, it would seem to be one solution of the problem. This appears to be a legitimate school expense, although it is frequently provided for through private philanthropy.

School Lunches in Rural Schools

IT is encouraging to find that hot lunches are being rapidly established in rural schools. Where no hot lunch is provided, the children taking their lunch are usually unsupervised at the noon hour, and have the liberty to eat it where and how they choose. There is great temptation to bolt the food and to get to games quickly, and the shy, diffident children may be left to eat their lunch in solitude. The serving of even one hot dish, therefore, is of great value, as it gathers the children together to take lunch under more healthful conditions.

*Teaching
home
craft to
both girls
and boys*



As there is a greater tendency to malnutrition among the country children, as compared with those in towns and cities (see p. 9), any help in selecting a better diet is of the most vital importance. The box lunch may well form a basis for this. One report states that "The lunch is commonly carried without wrappings of any kind, where it acquires the taste of tin; often it is wrapped in newspaper and gets the added flavor of paper and ink." A teacher in a North Dakota school reports that "Quite often in cold weather the lunch brought from home is frozen. When opened it is frequently found to contain cold pancakes, salt pork, cold potatoes, pie, and a bottle of cold tea or coffee," all of these foods except the potatoes (and we may include cold ones) having a very poor reputation in a diet for children.

*The
Box Lunch
from
Home*



For the box lunch, sandwiches are the great staple, easily portable and generally liked. Instead of the traditional slice of roast beef or ham, from which there is sometimes no variation, nutritious and appetizing fillings may be made from cottage cheese, chopped raisins, figs, dates, nuts, celery, eggs, or meat, which for spreading may be mixed with a little mild salad dressing, cream, or milk. Fruit is easily carried, and is an excellent supplement for the sandwich. A sweet of some kind may be included, such as gingerbread or plain cake with raisins, made into muffin form for easy packing; baked custard, jellied prunes, or figs in cups. A tomato and celery in season add variety. The lunch should be simple, as the busy mother must be considered, and nothing should be added that will crush easily in packing. The regulation tin lunch box, with handle, is the best container, and paraffin paper is indispensable for wrapping the food and keeping each kind separate. In extremely cold weather the food is more protected against frost by lining the box with several layers of wrapping paper.

*A needed health
lesson. How not
to pack the home
lunch*



Demonstrations in suitable materials for the lunch box and in the packing of these may be given with success. In many parts of the country the school authorities allow the home demonstration agents to go to the schools and demonstrate lunches and suitable daily dietaries to parents and children. The results more than justify the plan. Many reports, however, state that no instruction whatever has as yet been given in regard to suitable diet or to the preparation of the box lunch.

*Sources of
Expert
Aid and
Advice*

Many rural school teachers, through lack of any specialized training or experience, find it difficult to assist in improving nutrition conditions or to establish a hot lunch. Bulletins on school lunches and on nutrition may be obtained from the United States Bureau of Education, United States Department of Agriculture (through the Superintendent of Documents, Government Printing Office, Washington, D. C.), and from the various State colleges, through the cooperative extension service in agriculture and home economics. In a number of States, the promotion of school lunch work is one of the projects of the boys' and girls' clubs, organized by the extension service, and this has proved to be an excellent way in which to develop interest in the school lunch. In some States a school lunch specialist is in charge of this phase of the extension work. The cooperation of the county superintendent is usually secured before the lunch work is started in a county, and school lunch exhibits are taken to county institutes. In other schools the teachers and mothers cooperating supervise the lunch work. The closer this cooperation the more successful the lunch will be.

*The
Hot Lunch
in the
Smaller
Rural
Schools*

One of the problems of the hot-lunch work is how to do it in a way that will not add greatly to the already heavy burden of the teacher. The Extension Service in Nebraska, Ohio, Oregon, and New York State sends out very complete directions for the organization of

*Raising home standards
through the sanitary packing
of the school lunch*



the work, including necessary equipment, division of work among the pupils, methods of work, preparation of food, and bookkeeping. Other States also do this.

Equipment.—This may be very simple if only one hot dish is served. The following list is given as a very complete one for serving 24 pupils, but a simpler one may well be used in starting the work. The pupils may contribute the individual soup bowl, cup, and spoon, but a uniform set of these bought for the purpose will, of course, prove more satisfactory. A double boiler is a convenience but is expensive, and one may be improvised by setting the smaller saucepan inside the soup kettle, if the latter is not being used at the same time. Present prices for enamel ware are quoted as this is cheaper, but aluminum will prove a better investment if sufficient funds are available. This equipment may be stored with the supplies in a corner cupboard or in a low cupboard made from a packing box. The top may then serve as a table, if varnished or covered with white oilcloth. A drop shelf attached to a side wall has been used to advantage as a work-table. One supervisor had a special cupboard designed, into the lower part of which the oil stove and portable oven fitted, and in one side of the upper part the supplies were stored, in the other the equipment. In some schools the pupils carry their own dishes back and forward each day, but this is a poor practice, as they may forget these at any time.



*The
Box Lunch
from
Home*

Equipment for a One-Room Rural School

GRAY ENAMEL WARE.		Cost.
1 soup kettle, 8-quart.....	-----	\$2. 00
1 saucepan, 6-quart.....	-----	1. 75
1 ladle, No. 50.....	-----	. 45
1 water pail, 12-quart.....	-----	1. 50
1 soap dish.....	-----	. 45
1 double boiler (if possible), 6-quart.....	-----	3. 00





TIN AND WIRE WARE.

	Cost.
2 dish pans, 14-quart, heavy tin, at \$1.50-----	\$3.00
1 milk can, 1-gallon, covered-----	1.50
1 sieve, with masher-----	.50
1 measuring cup, $\frac{1}{2}$ -pint-----	.20
1 quart measure-----	.40
1 Dover beater, large size-----	.30

CUTLERY, WHITE METAL.

2 teaspoons, at 14 cents-----	.28
2 tablespoons, at 23 cents-----	.46
2 dozen teaspoons (or dessert spoons), "nickel silver," at \$1.10-----	2.20

MISCELLANEOUS.

1 oil stove, blue flame, 2-burner-----	18.75
2 pairs aluminum salt and peppers, at 25 cents-----	.50
1 can opener-----	.25
2 asbestos mats, at 15 cents-----	.30
2 vegetable brushes, at 5 cents-----	.10
2 wooden spoons, 18-inch, at 12 cents-----	.24
2 paring knives, at 25 cents-----	.50

CHINA, VITRIFIED, SEMIPORCELAIN.

2 dozen cups or mugs, at \$2.50-----	5.00
2 dozen saucers (optional), at \$1.40-----	2.80
2 dozen soup bowls, 5 $\frac{1}{2}$ -inch (or the cups may be used for soup), at \$3-----	6.00

TOWELING.

(All pieces should be hemmed.)

3 dishcloths, red stripe, $\frac{1}{2}$ -yard-----	.40
3 scrub cloths, blue stripe, $\frac{1}{2}$ -yard-----	.40
6 dish towels, 1-yard-----	1.50

Containers for staple supplies are necessary; empty tins, secured from homes in the district, may be used. A supply of paper hand towels is recommended, and wash basins are a necessity.

Supplies.—The furnishing of supplies is a problem which will be solved according to the special conditions in each community. Staple supplies, such as cocoa, sugar, flour, and seasonings, may be stored at school. Many reports state that the perishable supplies are sent from the various homes. This sending in of supplies should be systematized, families taking turns according to the number of their children having lunch at school. In some schools the children bring individual supplies

*Simple
equipment
may meet
every need*



each day, but this means a tedious routine of daily attention to a small matter. In a district where all supplies can be bought, parents sometimes prefer to have the children bring the money and have the supplies bought by the pupils who are in charge for the week.

Whatever system of furnishing supplies is used, an account of the daily cost of the lunch should be kept. A price list of the staple supplies should be available for reference, and children bringing in perishable foods may be given credit for these at prevailing market prices. In this way a record of the per capita cost of the lunch is obtained whether the children bring money for it or not.

Division of work.—The children, both boys and girls, large enough to work may be arranged in groups or committees of four or six, each committee taking the work in turn for a given time. In a committee of six, two may prepare the lunch, two prepare the table or desks for the meal, and two wash the dishes, the duties to rotate among the members of the group. These duties may be outlined in detail on sheets or cards and the directions so carefully worked out that little verbal instruction is necessary after the pupils have studied the sheets assigned to them. This plan relieves the teacher from much detailed work and teaches the children to work together, and to look upon the lunch as their own project. The teacher will, of course, supervise the work and see that good housekeeping is done.

The menu.—Teachers find that the chief desire of the children is to have something hot and something liquid. Cream of vegetable soups and purees have many variations and have the advantage of combining milk and vegetables in an appetizing way. Cocoa is easily prepared. Instead of having the children



*Boys do
their share
of the
lunch work*





bring hard-boiled eggs in their boxes, it is much better to prepare soft-cooked eggs at school. If the children have acquired a decided taste for vegetables, they may be served in more obvious forms, such as in creamed and scalloped dishes, and one teacher reports that carefully cooked prunes and figs have become popular dishes. Poor cooking will create a bad reputation for any food. A small oven for one burner of the stove will make baked dishes possible. Baked apples, baked custard, and scalloped dishes are easily prepared and add interest and variety to the lunch. Recipes for a given number of servings should be prepared on sheets or cards, and these may be gone over very carefully by the teacher and the committee each week. All plans should be made at least one week ahead.

Serving.—The lunch may be served cafeteria style, each pupil passing before the serving table to receive the prepared dish. If there is room, a table may be set up, even in the aisle, with the children sitting at their desks; otherwise the lunch may be served at each desk. Paper napkins may be used under the lunches, or circles of oilcloth stenciled with an attractive design in oil paint are a delight to the children. These will last a long time if wiped off carefully after being used. If possible, the teacher should stay for lunch, and with tact and kindness control table manners and courtesies, and develop a lively, happy interest in the lunch hour.

Clearing away.—Dishwashing and clearing away afterwards offer good lessons in sanitation and general cleanliness. Those cooking and clearing away should wear aprons, and the committee for the week should look after the weekly laundering of the towels. Dishcloths and towels, however, should be well washed each day and hung out to dry. *Dish mops should be avoided.* It will be noted that scrub cloths are included in the equipment. This is to avoid the possible use of

✓
Dishes should look appetizing



the dishcloth for wiping off tables, chairs, and dusty surfaces, a most insanitary practice and a frequent one! The oil stove needs careful attention, as the wicks must be kept trimmed and clean to preserve a smokeless flame. The room should be kept neat and clean and should be well aired, to clear away any lingering odors of cooking.

The Hot Lunch in Consolidated Schools

THIS is a very similar problem to that in the one-room rural school. Supplies are obtained much in the same way, the menu is similar as well as arrangements for serving and clearing away. The division of the work will be a little more complicated, as larger numbers are taking lunch, and additions to the equipment will be necessary.



EQUIPMENT FOR A CONSOLIDATED SCHOOL SERVING 50 PUPILS.

GREY ENAMEL WARE.

1 soup kettle, 16-quart.....	\$4.50
1 saucepan, 12-quart.....	3.25
1 ladle, No. 50.....	.45
2 water pails, 12-quart, at \$1.50.....	3.00
1 soap dish.....	.45
1 double boiler (if possible), 12-quart.....	4.25

TIN AND WIRE WARE.

4 dishpans, 14-quart, heavy tin, at \$1.50.....	6.00
2 milk cans, covered, 1-gallon, at \$1.50.....	3.00
1 sieve, with masher.....	.50
2 measuring cups, $\frac{1}{2}$ -pint, at 20 cents.....	.40
1 quart measure.....	.40
1 improved Dover beater, large size.....	.30

CUTLERY, WHITE METAL.

3 teaspoons, at 14 cents.....	.42
3 tablespoons, at 23 cents.....	.69
4 $\frac{1}{2}$ dozen teaspoons (or dessert spoons), "nickel silver," at \$1.10.....	4.95



MISCELLANEOUS.

1 oil stove, blue-flame, 3-burner.....	\$30. 00
4 pairs aluminum salt and peppers, at 25 cents.....	1. 00
1 can opener.....	. 25
3 asbestos mats, at 15 cents.....	. 45
2 vegetable brushes, at 5 cents.....	. 10
2 wooden spoons, 18-inch, at 12 cents.....	. 24
3 paring knives, at 25 cents.....	. 75

CHINA, VITRIFIED, SEMIPORCELAIN.

2½ dozen cups or mugs, at \$2.50.....	6. 25
2½ dozen saucers (optional), at \$1.40.....	3. 50
2½ dozen bowls (or the cups may be used), at \$3.....	7. 50

TOWELING.

(All pieces should be hemmed.)

4 dishcloths, red stripe, ½-yard.....	. 50
4 scrub cloths, blue stripe, ½-yard.....	. 50
8 dish towels, 1-yard.....	2. 00

Containers for staple supplies are also necessary. Empty cans, secured from homes in the district, are adequate. A supply of paper hand towels is recommended. Washbasins are also a necessity.

Division of work.—Reports show that in many consolidated schools the teachers have taken a large part of the responsibility for preparing the lunch, with the aid of the pupils. There are, however, schools where a paid worker is employed. Where the number taking lunch is large, this latter plan is almost necessary, as both pupils and teacher may find this additional work too great a burden to carry. This does not mean that the pupils will not help with the lunch. Plans may be made so that they may assist with each part of it, much in the same way as when no paid worker is employed.

In those States where the laws require that every seventh and eighth grade be taught some phase of home economics work the home economics teacher may supervise the lunch, provided that her class work takes up only part of her day. If cooking is taught, this helps to solve the problem of equipment. Frequently the work may be done in the classes, but care must be taken



*Creating a
demand
for a
more varied
diet*

not to sacrifice the class work to the preparation of the lunch.

A grade teacher reports—

I have the third, sixth, and eighth grades in my room and they serve for the entire school, always having an eighth-grade pupil, either boy or girl, as chairman. Each Friday I appoint three cooks, who do the cooking for the coming week. The chairman is responsible for the cooking and order in the kitchen. It is an honor to be on the cooking force. One of the smaller boys acts as chair monitor each week, when his business is to place the chairs around the table.

In this school the mothers take turns in sending in the perishable supplies. Menus are made out three weeks ahead, and each mother is sent a card, which gives her day for furnishing supplies and the list of supplies necessary.

From another school comes this report:

Our problem here was to establish an immediate means of relief for conditions showing malnutrition among the children. A group of pupils from the four upper grades plan the working scheme, schedules, menus, and elect the special workers. All work is referred to them and they delight in bearing the responsibility. They may at any time make suggestions for the lunch hour, and a recent one was that we have music during the hour.

As in the smaller rural school, in dividing the work duties should be outlined in detail on cards or sheets and directions so standardized that they may be passed on to the group each week with very few instructions. (See p. 17.) This is part of any good organization and relieves the teacher of detailed instruction and constant supervision. Recipes for given numbers should also be carefully worked out on cards. In no case is it wise to have the teachers do the work and take entire charge of the lunch. The boys and girls will be more interested if it is worked out as their own project.

*Children
should be
given
the
milk habit*



Serving.—If classrooms are used for eating the lunch, the pupils may gather in one classroom large enough to comfortably accommodate all those taking lunch. In one school visited tables were set up in the corridor, which was quite wide enough and served the purpose very well. Quite frequently an assembly or playroom is available. Whatever arrangements are made, the pupils should eat in comfort at tables or desks set up in an orderly way.

Where larger numbers are served there may be a tendency to disorderliness, and there should be supervision of a kind that controls this and that develops a happy, sociable lunch hour. In many schools the pupils are required to remain at table 20 minutes at least. This should reduce the temptation to “bolt” food and hurry off to play.

Bookkeeping.—When supplies are bought and the lunch is paid for by the individual pupil, a different system of account keeping is necessary. The cost of each dish served is computed, the number of portions it served noted, and the cost of each portion found. A small margin will have to be allowed for the cost of soap, oil for stove, and other small items of expense. If a worker is paid out of the receipts from the lunch, this must, of course, be added to the total selling cost of the dishes. The following simple record sheet for bookkeeping is then adequate:

Date.	Items.	Receipts.	Disbursements.		
			Food.	Labor.	Other supplies.
.....
.....
.....
.....
Total.....	

*A happy,
sociable
lunch
hour*



In this way the exact distribution of expenses is easily seen, and the selling price of each portion readily computed. Care should be taken that the same number of portions are always secured from a given recipe; a standard serving should therefore be worked out. These principles are applicable to a lunchroom of any size, if the lunch must be self-supporting, as far as labor, raw food, and other supplies (fuel, soap, etc.) are concerned. The receipts from the lunch are rarely expected to cover any other expenses, except such ones as laundry and ice. This bookkeeping should be done by the pupils, as it is an excellent training in arithmetic and account keeping, and may be for them the beginning of an interest in the home budget and expense account, as well as an education in thrift.

The Elementary School Lunch

IN a number of cities the lunches in the elementary schools have been started by one of the city organizations or by a group of citizens devoted to the best interests of education. In Indianapolis a School Lunch Association has recently been organized, the aim of which is to make school lunches permanent in all the grade schools of the city. The director is a woman with a home economics training. Plans have been made to serve a mid-morning meal, at that part of the day which, for so many children, is the "hungry hour." St. Louis has a Children's Lunch Association, and Louisville now has a lunch established in 27 grade schools of the city, as a regular part of the school system. In Louisville the two directors of the lunch department have the same rank in the school system as those of any other special division, and the lunch serv-

*Children taught
to drink milk
at school
ask for it at
home*



ice is considered an important factor in the health teaching. The lunch here is a simple mid-morning one, as Louisville has the single session system with two short recesses. In some schools provision is made for serving milk at school, and this plan is of value, even though no other lunch work is done.

Equipment.—The equipment should be carefully selected with a view to the needs of the school. The following equipment list is given as suitable for serving 250 pupils, and may be modified to suit particular needs and numbers. The work may be started with simpler equipment than this, and additions made from time to time as the work develops and funds are provided.

Equipment

EQUIPMENT FOR AN ELEMENTARY SCHOOL LUNCH SERVING 250 PUPILS.

LARGE EQUIPMENT.

1 range, 8-burner gas; 2 ovens; high shelf.....	\$220. 00
1 gas heater and boiler (if no other supply of hot water)....	-----
1 cupboard, with removable wire shelves, for bread, etc. (special order).....	-----
1 cook's table, ash top, or zinc covered, 6 by 3 feet; drawers and shelf below.....	45. 00
1 work table, 5 by 2½ feet; ash top or zinc covered.....	20. 00
1 refrigerator, galvanized-iron lining, tile floor.....	80. 00
1 sink, 48 by 30 by 18 inches; galvanized iron; two compartments, each with drain boards, 36 by 24 inches.....	58. 00
1 towel rack, 8-screen.....	3. 00

SMALL EQUIPMENT.

1 bread slicer.....	22. 50
1 meat grinder, large size.....	7. 00
1 double boiler, agate, 8-quart.....	4. 60
1 double boiler, retinned steel, 12-quart.....	8. 10
1 double boiler, retinned steel, 16-quart.....	9. 90
1 double boiler, retinned steel, 24-quart.....	12. 60
1 stock pot, retinned steel, 40-quart.....	15. 00
1 stock pot, retinned steel, 56-quart.....	24. 35
1 stock pot, retinned steel, 25-quart.....	13. 35
1 stew pan, retinned steel, 12-quart.....	10. 40
1 scale; table; platform.....	16. 50
2 garbage cans, galvanized tin, large size, at \$6.60.....	13. 20
12 cans, for kitchen supplies; empty tin lard cans, from 5 to 25 pounds.....	-----
2 pails, agate, 14-quart, at \$1.50.....	3. 00
6 bowls, 12-inch, white agate, at \$1.10.....	6. 60



2	dishpans, heavy tin, 17-quart, at \$2.50	\$5.00
1	mixing bowl, retinned steel, 7-quart	2.40
1	sauté pan, 18-inch, sheet iron	1.50
1	flour sifter, tin	.30
6	mixing bowls; crockery; nest 8-18 inches	6.50
3	wooden spoons, 18-inch, for stirring, at 12 cents	.36
1	work board, wood, 24 by 20 inches	.90
1	measure, tin, 1-gallon	.75
1	measure, tin, 1-quart	.40
1	grater, cylinder	.25
1	colander, 12-inch, enamel ware	1.20
1	Dover beater, large size	.30
1	spice tray, japanned, 6 cans	.75
1	salt box, wooden	.50
1	pair salt and peppers, kitchen size, aluminum	.50
1	puree sieve, with masher	1.50
2	scrub pails, galvanized tin, 12-quart, at \$1	2.00
1	chopping bowl, wooden, 16-inch	.95
1	potato masher, wire, large size	.50
6	baking pans, agate, 22 by 14 inches, at \$1.25	7.50
6	muffin pans, heavy tin, 12 to a pan, at 95 cents	5.70
2	measuring cups, tin, ½-pint, at 20 cents	.40
2	ladles, ½-pint, retinned steel, at 45 cents	.90
2	serving spoons, 13-inch, aluminum, at 65 cents	1.30
1	ice-cream server, nickel	2.00
3	pitchers, agate, 1-gallon, at \$1.85	5.55
2	can openers, "Neverslip," at 25 cents	.50
1	lemon reamer, glass, juice rim	.25
6	asbestos mats, at 15 cents	.90
12	trays, 24 by 18 inches, japanned, at \$1.50	15.00
1	kitchen fork, 2-tined, large, steel	.25
1	steel, for sharpening knives	1.00
1	spatula, 8-inch blade	.90
3	paring knives, at 25 cents	.75
2	bread knives, saw blade, at 75 cents	1.50
2	case knives, at 20 cents	.40
1	French cook's knife, 10-inch blade	2.15
1	chopping knife	.60
1	butcher knife, 9-inch blade	1.75
1	deck scrub brush, 10-inch	.50
1	mopstick	.40
2	scrub brushes, fiber, 8-inch, at 25 cents	.75
2	corn brooms, at \$1.50	3.00
6	vegetable brushes, at 5 cents	.30
½	dozen mop heads, at \$4	2.00

LINEN.

4	dozen dish towels, 1-yard, hemmed	12.00
2	dozen dishcloths, ½-yard, hemmed	3.00
2	dozen scrub cloths, ½-yard, hemmed	3.00
6	only, oven holders, 10-inch square, 4 layers	1.50
6	only, floor cloths, woven cord	1.50
6	only, dusters, 1-yard, cheesecloth	.84



DISHES AND CUTLERY.

10 dozen custard cups, fireproof china, at \$1.25.....	\$12. 50
22 dozen teaspoons, nickel silver, at \$1.10.....	24. 20
10 dozen forks (dessert size), nickel silver, at \$2.15.....	21. 50
22 dozen plates, 8-inch, hotel china, at \$2.30.....	50. 60
22 dozen mugs, hotel china, at \$2.50.....	55. 00
20 dozen sauce dishes, hotel china, at \$1.....	20. 00



For saucepans, double boilers, and kettles, aluminum is most durable and satisfactory, if sufficient funds are available. Retinned steel, however, is very satisfactory; enamel ware is the least desirable. Bread knives may take the place of a bread slicer, but the latter is a labor saver. Containers for store room supplies also necessary. For the lunchroom a steam table and an urn for cocoa are convenient but not necessary. The hot soup and cocoa kettles may be carried out to a serving table and set on asbestos squares. A supply of drinking water in the lunchroom is important. Tables covered with an impervious finish are, of course, part of the lunchroom furnishings. They may have to be set up each time if the room is used for other purposes. One school has covered the table tops with white oilcloth, but two coats of hard spar varnish with a dull finish make a durable, attractive, and easily cared-for covering. Benches or chairs are also provided. Trays for each child are not necessary, but are a convenience. These may be of japanned tin, which is not very durable, however. If funds are provided, aluminum is the most durable for these.

The Menu

The menu.—This will necessarily be simple, particularly for the mid-morning meal. Cocoa, milk, purees, chowders, cream of vegetable soups, creamed and scalloped vegetables, baked beans, macaroni dishes, stewed, baked, or raw fruit, sandwiches, ice cream, milk and chocolate and crackers are suitable dishes. Simple desserts, such as tapioca pudding with apples or other fruit, rice pudding with raisins, brown betty,



*Forming
the good habit
of drinking water
after each meal*

and light cake in muffin form are acceptable. "Inasmuch as the child has ordinarily a free choice between bringing his lunch or patronizing the school lunch, the latter must win by persuasion rather than force." The little shop across the street and the street vendors have also to be reckoned with. Any candy for sale should, of course, have the last place on the serving counter, and candy which can be eaten "on the spot" is preferable. This would eliminate such sweets as all-day suckers, lollipops, and small candies carried around in a paper bag or in the hand. Children should be aided in their choice in a cheerful, kindly way as they pass along the counter, and all servers should be instructed in this work. The "penny portion" lunch has increased to 2 cents in all schools, and some dishes are 3 cents and more. In the elementary schools, however, prices must be kept low, as otherwise they will be prohibitive for many children.

Supplies.—These should be bought at wholesale prices and staple materials in as large quantities as possible. In giving orders, each article should be carefully specified as to grade, etc., and the market watched for possible changes in prices. Only stock which will keep and which can not be bought to advantage in autumn should be carried over the summer. Through investigation and inspection the lunch room should be protected from any food that is not pure or that has been prepared under insanitary conditions. This is particularly important in purchasing bread, rolls, ice cream, and milk. There is always a risk in buying milk in bulk; if this is done, the bacterial count and sediment should be watched, and it must be carefully handled in the lunch room. The law sometimes controls this by not allowing milk to be served except in bottled form. Goods should be inspected when received, and weight, measure, or number checked. Storage space should be large enough to store all food

Supplies

*Supplies
should be bought
wholesale*



properly as soon as received and supplies placed in classified form so that they will be readily accessible. The storeroom should be kept cool, clean, and free from any insect pests and *should be kept under lock and key*. In order that an inventory of stock may be easily taken, a note may be made, on slips attached to containers, of amounts taken out and of balance on hand. Small amounts may be kept in containers in kitchen cupboard. Galvanized iron or heavy japanned tin containers are satisfactory for the storeroom.

Supervision

Supervision.—If the lunch room is under the supervision of the home economics department, there should be a thoroughly competent person in direct charge of the preparation and serving of lunch, the home economics teacher controlling the general organization, the character of the menu, and the educational aspects of the lunch work. If the lunch room is part of a city system, the director of lunches should be trained in nutrition work, both in theory and practice, and should have a reliable assistant in each school. In Philadelphia Miss Smedley, director of lunch rooms, has dietitians in charge of certain groups of schools throughout the city, with a practical woman in each school looking after the preparation and serving. Close cooperation on the part of the principal and teachers at each school is a very necessary part of the supervision work.

Student assistants.—The principal of Wells School, Chicago, reports concerning student assistants:

Student Assistants

It is well to enlist the help of every boy and girl in the grammar grades of the school in selling, serving, and keeping the lunch room tidy. Both boys and girls delight to act as clerks, and a tactful teacher can easily put the desire to be of service so enticingly before her pupils that it is extremely rare to have anyone decline to help. An upper-grade pupil, preferably a girl, may for a week at a time act as manager of the volunteer helpers. She may assign them to stations, explain prices, show the size of portions to be served, as well as see that the helpers have washed their hands and put on serving



aprons. Educationally, it is desirable that there be prepared and mimeographed rather specific directions to guide the volunteer helpers toward cleanliness and tidiness of the person, a businesslike attitude toward the pupils in line, and honest loyalty toward the material interests of the lunch room. In addition, on separate sheets, mounted and numbered, there may be specific directions for pouring milk, handling food, and keeping the dining tables clean and clear. Where this volunteer service rotates among a great many children it is highly necessary that the same standard and the same instruction be given to the various pupils who do any one specific thing in the lunch room. It is unfair, however, to ask anyone, without recompense, to be faithful in the performance of monotonous or perfunctory tasks, and these are just the tasks that are most often asked of volunteers. With the plan outlined above for volunteer lunch-room service, each child must needs learn from the printed page such details of his work as will challenge his thought and secure his interest.

These volunteers may be paid through receiving their lunch in return for the service.

Lunch-room records and business forms.—Good business administration of any lunch room is very necessary. Suitable forms for the various records should be established and carefully kept.

*Lunch-room
Records and
Business
Forms*

Order book.—An order book, where one or two carbon copies of every order are made, saves the labor of recopying when goods are received and checked. If the director of a city lunch system does most of the ordering of supplies, it is wiser to order for each school separately and send one copy of each order to the school concerned. When supplies are received, this copy of the order is checked and returned to the director. If supplies are ordered by each school, a copy of these orders when checked should be sent to the director. In this way the director has a complete record of all supplies ordered, either daily, weekly, or at longer intervals. The invoices may all be checked from these records.



Stock cards.—Stock cards are a great convenience, as they represent in classified form the record of all supplies received, with prices. A 5 by 8 inch card may be kept for each foodstuff or supply, showing date, amount ordered, source, and price. These are kept in a card-index box in alphabetical order and are of great assistance in keeping track of prices or in taking stock.

Daily reports.—Forms for recording the bank deposits, the daily menus, the daily receipts, and the daily attendance, and a form for a monthly summary of these, are necessary.

Recipes.—Recipes on 5 by 8 inch cards showing the caloric value and the portions served and careful directions for preparation are also an important part of the records on file.

Wage schedule.—A wage schedule, weekly or semi-monthly, shows the persons employed, the wages paid, and total wages due. A record of the amount of lunches given to student helpers should also be kept and included in the monthly labor expense account.

Guest tickets.—These will represent another expense item and should be recorded.

Cost of serving.—A form for calculating the cost of each dish served, with the number of portions actually served and their selling price, will show the profit or loss on each dish. In some schools this is checked up each day, but in others this is only worked out from time to time to check changing prices and to control the size of portions served.

Petty cash account.—If a petty cash account is allowed, it should be as small as possible, as much time may be poorly spent in recording items on petty cash sheet and in keeping it balanced. All other orders should be paid by check, promptly enough to secure any available discount.

30

*Individual
soup bowls of
agate ware
serve
many purposes*



Filing.—All these forms should be kept on file, either at each school or in the office of the director if the school is part of a city system.

Bookkeeping.—The bookkeeping is sometimes done by an outside bookkeeper. When the lunchroom is part of a large city system, the bookkeeping is more or less complicated and is a special problem. A simple method for a single lunchroom is the classified or columnar cash book showing daily receipts and a classified account of expenditures. A monthly "distribution sheet" giving the monthly totals of these receipts and expenditures should be used. A convenient classification of expenditures is: Groceries, dairy products, fruits and vegetables, meat, laundry, fuel, other supplies, labor. Invoices should be filed away when paid.

System used in one city.—One director of a city system orders all supplies for each school, using an order book such as the one mentioned above. Each Wednesday a list of supplies for the coming week is sent in from each school, and on Thursday the director orders these, sending copies of orders to the schools. These are returned to her when checked. Bank deposit slips are also sent to her, as are also the daily receipts and attendance records. Every month stock is taken, showing amount of supplies on hand in the storeroom at each school. A bookkeeper is employed, who receives a statement each week of the amount of each invoice checked and discounted. He sends out the checks for these, fills in the statement sent him by the director, and returns this to her.

In depositing money in bank, pennies and dimes must be wrapped in rolls of 50 and nickels in rolls of 40.

Serving the lunch.—If a series of lavatories is placed conveniently near the lunchroom, washing of hands is easier to control, as, of course, this should be done just before the child has lunch. The children sometimes



*Serving
the
Lunch*



buy metal checks from the teachers in the various classes, and as they pass in front of the serving table at each section locked boxes are provided with a slot through which these checks are dropped by the servers. At other schools the children bring their pennies directly to the table. A rail keeps the children in line until they pass to the tables. The director at Louisville sends this report: "Each class has its own table, where the teacher acts as hostess. Without the cooperation of the teachers, lunch service can have no cultural value."

The principal of Wells School, Chicago, makes this comment:

Once the lunch has filled a social need for the children and they have acquired the habit of eating together in groups and enjoying themselves they will submit to a good deal of direction without resenting it. The habit of filling the mouth with bread or other dry food and of washing the mass down with a drink will yield to public opinion if this and other improper eating habits are discussed in the classroom and followed up by a word from an adult passing in and out among those who are eating. If there is space for it, an excellent idea is to reserve a table for any group of children who wish to eat together and who have shown themselves capable of maintaining good manners at the table. A table runner, paper napkins, or lunch cloths pay for themselves in increasing the self-respect of the group. It is an unfortunate fact that a considerable portion of our population is not acquainted with the family meal. It is possible to have an upper-grade child whose manners are good sit at a table with younger children and gradually bring them up to a higher standard of habits of eating. Likewise, a teacher who is willing occasionally to preside over a table of upper-grade pupils may assist in helping the nearly lost art of table conversation. It would not be out of place to call such efforts as these Americanization work, no matter whether the children are foreign or native born. The most humiliating element in the management of an average lunch room is the lack of facilities for washing hands. That children who have come from home, perhaps, with dirty hands and at school have played in the dirt and have gone to the toilet should be invited to the lunch table by the school authorities without having the opportunity to clean their hands is a reproach.



Lunches in High and Normal Schools

LUNCH rooms in rural high schools, in town and city high schools, and in normal schools all present much the same problems of organization, and should correspond in their administration to that of a well-ordered cafeteria. In the normal schools, however, an additional problem is presented. The teachers in training, as they may establish and carry on school lunches in the near future, should receive instruction in nutrition work, and should be given an opportunity for some practice work in the lunch room in order that they may know something of how a school lunch is conducted. One North Dakota normal-school teacher writes: "In our teacher-training classes we make a study of the school lunch, its need, methods of establishing, suitable equipment, suitable foods and food values, cost of maintenance, packing of the box lunch, and methods of instructing the mothers." In a New Jersey normal school (Trenton) the students spend from 8 to 20 hours working in the lunch room and act as hostesses at the children's tables.

The lunch room is too frequently located in rooms that can not well be used for any other purpose. Quite often this is a dark basement, where the problems of cleanliness and ventilation are difficult, and where artificial lighting is always necessary. In addition to this, it is often impossible to keep the odors of cooking from permeating the whole school. It is particularly regrettable to so place the lunch room, since the school lunch affords the only opportunity to place daily before all the school children American standards of living. The lunch room should be one of the lightest, airiest, and most attractive rooms in the school building. The lunch period should afford not only food for the body but

*Location of
Lunch Room*

✓

33

*The
lunch room
should be
light and airy*



congenial social fellowship and an opportunity to establish standards of courtesy and good manners.

By making the lunch room period the same length as a regular class period, students can be fed in relays, so that smaller lunch space will be required. In thus relieving the regular classrooms the school lunch room makes possible an economy in the use of the plant. The top-floor location is in many respects ideal, especially if there are windows on two or three sides. A high ceiling and cross drafts from outside windows assure good ventilation. Two doors, one for entrance and the other for exit from the lunch room, are a convenience.

The kitchen should be on the same floor and adjacent to the lunch room, but as near as possible to stairs or elevator, for convenient delivery of supplies.

Floor space.—The kitchen should be large enough to provide for a convenient placing of equipment, with just enough space left in which to work comfortably. A serving room beside the kitchen, where the cold foods are prepared, is a great convenience but not a necessity.

It has been estimated that for the dining room at least 8 square feet of floor space should be allowed for each person. The serving counter should, of course, be placed near the kitchen, and the steam table set in that part of the counter where it can be most easily supplied with hot food. The serving counter should not be less than 18 feet long, and should be placed in such a shape as will best fit the room. In estimating the number of persons standing in line at one time 18 inches per person is allowed. A handrail 3 feet 6 inches from counter controls the line before counter.

In large lunch rooms a good location for the refrigerator is to have it set in the wall between the kitchen and dining room, to the rear of the serving counter. Some college lunchrooms are now placing the serving counter so that it can not be seen from the dining room, either by having it in a separate serving room or

*Floor
Space*



by screening it effectively. This adds very much to the appearance of the dining room, particularly if the latter is used much for special social functions.

This will depend upon several things. The type of menu is one. If this is simple, with little choice offered, less time will be spent in selection. If a light meal is served the time will also be reduced. As stated before, in some schools where a hearty meal is served the pupils are asked to spend 20 minutes at the table, in order to prevent the tendency to bolt food. Where large numbers are served and there is not adequate accommodation for all in the lunch room at one time, the pupils may be divided into two or more relays. The time allowed for each relay will depend upon the above-mentioned factors, but from 30 to 40 minutes will usually be sufficient. Tables must be cleared, and sometimes dishes must be washed between relays. If the pupils themselves clear the tables, this is an economy in every way. The menu boards should also be in a conspicuous place, as this facilitates the selection of food.

Selecting.—Before selecting the equipment for these lunch rooms the type of menu, the fuel available, the number to be served, and the floor plan should be carefully taken into account. The equipment lists given here are considered quite complete ones for serving 150 and 350 pupils. It is not necessary to start with such a complete outfit, but the lunch work will be made much easier if adequate equipment is supplied. Every labor-saving device installed means much in helping to solve labor problems, but these devices are expensive, funds may not always be available, and it may be wise to start with a very simple equipment and add to this later.

Materials.—As stated before, aluminum is the most durable for saucepans, double boilers, stock pots, ladles, etc., but it is the most expensive. Retinned steel ranks next, is cheaper, and can be easily refinished. Enamel

*Time
Allowed for
Serving
Lunch*

*The
Equipment*

*Sometimes
dishes must
be washed
between relays*



ware does not wear well, especially in such large pieces, as it does not always receive gentle handling.

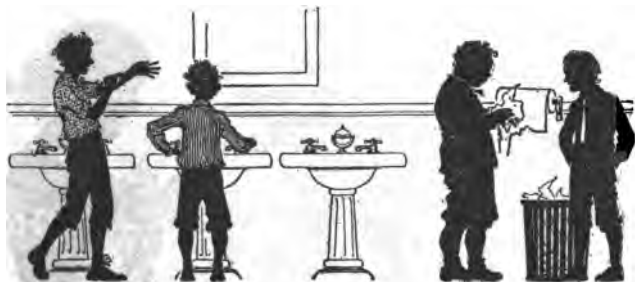
Cabinet work.—An intelligent carpenter will be a great help in planning the serving counter, kitchen shelving, and storage space. All carpentry should be of a hard, washable finish, and for this two or three coats of hard spar varnish are most satisfactory. The varnish must be allowed to dry well between each coat, and the last coat rubbed down to a dull finish.

Serving equipment.—Where gas or live steam is not available, a "steam table" heated by compressed charcoal is satisfactory. It may be necessary to set up the serving equipment each day, if the lunch room is used for other purposes, and this may mean considerable portable equipment, such as steam table, serving counter, etc. At the Scarsdale High School, Scarsdale, N. Y., the domestic science classroom table is now used for a serving counter, with a portable charcoal-heated steam table. The tables and chairs are set up in a wide corridor outside this room. This temporary arrangement has served to introduce most successful lunch work, and plans are now being laid for more permanent equipment.

Duplicate service for large numbers.—For numbers over 300 it is better to have a duplicate counter service, especially for the steam-table section. This is where the line will be "held up" at a crowded hour. If the whole counter service can not be duplicated, duplicating the steam table—that is, using two steam tables side by side and having half the line pass on to the second—has proved satisfactory. This equipment may be adjusted to serve numbers above 350 by increasing range space, oven and refrigerator space, and by adding more labor-saving machines, such as a beating machine, a slicing machine, an electric meat chopper, and a Bain



X



*Training
in
better food
habits*

Marie beside the range for keeping food hot until needed to refill steam-table containers.

Dining tables and chairs.—The number, size, and arrangement of these will depend upon the floor plan and the number to be seated at one time. Very long tables should be avoided, as their use prevents the pupils breaking up into small social groups and may develop a noisier lunch hour. A table for six is a good size, and the width should correspond to the width of two trays, if the latter are used.



Other equipment.—A cash box and the necessary record forms will complete the equipment. A cash register is a labor saver where the numbers are large.

EQUIPMENT FOR A SCHOOL LUNCH ROOM SERVING ABOUT 150 PUPILS.

Equipment for 150

1 range, gas, 2 sections, solid top, high shelf.....	\$210. 00
1 heater and boiler (if no other supply of water).....	
1 cook's table, 10 by 8 feet, metal legs, ash top.....	80. 00
1 pot rack, triple bar, supported on table.....	25. 00
1 work table, 8 by 8 feet, metal legs, ash top.....	65. 00
1 table (beside range), zinc-covered top, 5 by 3 feet, same height as range.....	15. 00
1 cupboard, high, removable wire shelves, for bread and cake...	
1 dishwashing sink, galvanized iron, two compartments, 48 by 30 by 18 inches; galvanized-iron drain boards, 36 by 24 inches.....	85. 00
1 supply cupboard, wood or galvanized iron, 30 inches high by 3 feet wide by 16 inches deep, to be placed 30 inches from floor; shelves (special order).....	
1 butter cutter, Elgin.....	9. 00
1 bread slicer.....	16. 50
1 meat chopper, large size.....	7. 50
1 scales, counter, platform.....	18. 00
1 vegetable parer, small size.....	100. 00
1 vegetable masher, 9-inch cylinder, heavy tin.....	11. 50
1 refrigerator, galvanized-iron lining, wire shelves, 4½ feet....	180. 00

SERVING EQUIPMENT.

1 serving counter, top of hard, impervious finish; length suitable to type of menu and floor plan; counter rail included...	
1 steam table, with 2 trays, 4 insets, Monel metal, containers included, dishwarmer of Russia iron below.....	225. 00
1 ice cream cabinet, 1 can, 15-quart.....	20. 00
1 cocoa urn, 10-gallon, nickel plated.....	50. 00



1 water cooler -----	\$65.00
2 menu boards, with set of letters and figures, at \$7.50-----	15.00
1 dish truck, with rubber-tired wheels-----	85.00
2 tables, for cashier and checker, plain oak, 4 feet, at \$10-----	20.00
2 chairs, for cashler and checker, at \$4.75-----	9.50

ALUMINUM EQUIPMENT.

1 stock pot, no faucet, covered, 40-quart-----	29.30
1 sauce pot, covered, loop handles, 25-quart-----	22.15
2 sauce pots, covered, loop handles, 14-quart, at \$13.20-----	26.40
2 saucepans, 6½-quart, at \$8.30-----	16.60
1 saucepan, 2½-quart-----	3.70
2 double boilers, inside pot 11-quart, at \$19.20-----	38.40
1 double boiler, inside pot 4-quart-----	10.20
2 ladles, 3½-inch, at \$1.50-----	3.00
1 pair salt and peppers, kitchen size-----	.50
6 trays, for cutlery, sandwiches, etc., 18 by 14 inches, at \$2.50-----	15.00

ENAMEL WARE, WHITE.

1 pail, 14-quart-----	2.00
2 pitchers, 1-gallon, at \$1.75-----	3.50
1 pitcher, ½-gallon-----	1.30
4 bowls, 10-inch, for refrigerator, at 90 cents-----	3.60
1 colander, 12-inch-----	1.20

STONEWARE.

1 bowl, 16-inch, for mixing-----	2.25
2 bowls, 12-inch, for mixing, at 65 cents-----	1.30
1 bowl, 9-inch, for mixing-----	.30
2 butter jars, 10-inch, at 75 cents-----	1.50

WOODENWARE AND BRUSHES.

1 chopping bowl, 16-inch-----	.90
1 pastry board, 30 by 24 inches-----	1.00
1 meat board, 24 by 18 inches-----	.75
1 rolling pin, 11-inch-----	.50
3 spoons, 18-inch, mixing, at 12 cents-----	.36
1 corn broom-----	1.50
2 scrub brushes, fiber, 8-inch, at 25 cents-----	.50
1 deck scrub, fiber, 10-inch-----	.50
1 hair broom, 12-inch block-----	3.35
6 vegetable brushes, 4-inch, at 5 cents-----	.30
1 towel rack, 3-screen-----	3.00
1 mop stick, wrought iron-----	.40
6 mop heads, cotton, at \$4.65 per dozen-----	2.33

IRON, TIN, AND WIRE WARE.

1 roasting pan, Russia iron, to fit ovens-----	1.85
4 cake pans, Russia iron, 12 by 12 inches, or to fit ovens, at 85 cents-----	3.40

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6 muffin pans, heavy tin, 12 to a pan, at 95 cents.....	\$5.70
12 layer cake tins, 10-inch, heavy tin, at \$1.05 per dozen.....	1.05
1 frying pan, heavy steel, 15-inch.....	.90
1 measure, tin, 1-quart.....	.40
1 measure, tin, 1-gallon.....	.65
2 measuring cups, tin, 1-pint, at 20 cents.....	.40
2 garbage cans, galvanized iron, large size, at \$6.60.....	13.20
1 dust pan, japanned tin.....	.45
1 scrub pail, galvanized tin, 12-quart.....	.55
1 beating bowl, retinned steel, 14-quart.....	2.00
2 dish pans, retinned steel, 21-quart, at \$1.60.....	3.20
1 dish pan, retinned steel, 14-quart.....	.95
1 potato masher, large size, wire.....	.50
2 Dover egg beaters, large size, at 30 cents.....	.60
1 French wire whip, 20-inch.....	.75
1 grater, 4 by 9 inches.....	.20
1 Chinese strainer, 6-inch.....	2.80
1 puree strainer, tin, 10-inch, wooden masher.....	1.45
1 spice tray, japanned, 6 cans.....	.75
1 flour sifter, tin.....	.25
1 flour can, japanned tin, 100-pound.....	8.85
1 sugar can, japanned tin, 50-pound.....	3.95
1 wire basket, for washing greens.....	1.40
12 supply cans, empty lard cans, 5 to 25 pounds.....	.....

TOOLS, HARDWARE, AND CUTLERY.

1 French cook's knife, 10-inch.....	2.15
1 knife, 8-inch, "kitchen slicer," pointed blade.....	.75
1 knife, 14-inch, "ham slicer".....	1.90
2 paring knives, at 25 cents.....	.50
1 case knife.....	.20
1 spatula, 6-inch.....	.55
1 spatula, 8-inch.....	.90
1 steel, knife sharpener.....	1.00
1 chopping knife, steel.....	.60
2 forks, large, 2 tined, steel, at 25 cents.....	.50
2 spoons, 13-inch, aluminum, serving, at 65 cents.....	1.30
1 ice cream server, Gilchrist.....	2.00
1 biscuit cutter, 2 1/2-inch.....	.10
2 can openers, "Neverslip," at 25 cents.....	.50
1 pair shears, 9-inch.....	1.35
3 tablespoons, nickel silver, at \$2 per dozen.....	.50
3 teaspoons, nickel silver, at \$1 per dozen.....	.25
1 knife grinder, grindstone, 6-inch.....	2.55
1 screwdriver, 8-inch.....	.60
1 chisel.....	.75
1 nail puller.....	1.25
1 hammer.....	1.40

GLASS AND CHINA.

1 lemon reamer, juice rim.....	.25
15 dozen drinking glasses, "cupped in" top, at \$1.20.....	18.00
1 1/2 dozen salt shakers, nickel silver caps, at \$2.75.....	4.18



*Glass and
China*



1½ dozen pepper shakers, nickel silver caps, at \$2.75-----	\$4.13
3 dozen sherbet glasses, footed, at \$2.15-----	6.45
3 dozen ramikins, 3½-inch, fireproof china, at \$1-----	3.00
5 dozen custard cups, 3½-inch, fireproof china, at \$1.25-----	6.25
10 dozen soup bowls, 5½-inch, vitrified hotel china, at \$2.70----	27.00
12 dozen cups, vitrified hotel china, at \$2.80-----	33.60
12 dozen saucers, vitrified hotel china, at \$1.40-----	16.80
3 dozen fruit saucers, 5-inch, hotel china, at \$1.30-----	3.90
15 dozen plates, 8-inch, hotel china, at \$2.80-----	42.00
15 dozen plates, 6-inch, hotel china, at \$1.85-----	27.75



SILVER.

13 dozen teaspoons, heavy nickel silver, at \$1.35-----	17.25
10 dozen dessert spoons, heavy nickel silver, at \$2.35-----	23.50
10 dozen dessert forks, heavy nickel silver, at \$2.35-----	23.50

KITCHEN LINEN (ALL PIECES HEMMED).

3 dozen dish towels, 1-yard, union crash, red border, at 24 cents--	8.64
1 dozen dishcloths, ½-yard, union crash, red border, at 24 cents--	2.88
1 dozen scrub cloths, ½-yard, union crash, blue border, at 24 cents-----	2.88
1 dozen towels, ¾-yard, "Russian homespun," for pots and pans, at 27 cents-----	2.43
1 dozen floor cloths, 1-yard, woven cord, at 25 cents-----	3.00
1 dozen dusters, 1-yard, cheesecloth, at 14 cents-----	1.68
½ dozen pot and pan holders, 10-inch square (4 layers)-----	1.50

*Equipment
for 300 to
350*

EQUIPMENT FOR A SCHOOL LUNCH ROOM SERVING FROM 300 TO 350 PUPILS.

LARGE KITCHEN EQUIPMENT.

1 range, gas, 2 sections, solid top, with high shelf, hood and ventilating fan-----	\$250.00
1 heater and boiler (if no other supply of hot water)-----	
1 oven, cabinet, 4 sections, upright-----	125.00
1 cook's table, Monel metal, steel or ash top, drawers, and metal legs, 10 by 3 feet (ash top quoted)-----	80.00
1 pot rack, triple bar, supported on table-----	25.00
1 work table, ash or metal top, metal legs, 8 by 3 feet (ash top quoted)-----	65.00
1 table (beside range), zinc-covered top, 5 by 3 feet, same height as range-----	15.00
1 cupboard, high, removable wire shelves for bread and cake (special order)-----	
1 cook's sink, galvanized iron, 2 compartments, 48 by 30 by 18 inches, with galvanized iron drain boards, 24 by 30 inches--	85.00
1 supply cupboard, wood or galvanized iron, 30 inches high by 3 feet wide by 16 inches deep, to be placed 30 inches from floor, fitted with shelves (special order)-----	
1 vegetable sink, same as cook's sink-----	85.00
1 dishwasher, covered spray type, similar to Crescent AA model-----	375.00



1 vegetable masher, Sterling or similar model.....	\$31.50
1 bread-slicing machine.....	22.50
1 butter cutter, Elgin.....	9.00
1 meat chopper, large size.....	9.50
1 scales, counter, platform.....	18.00
1 vegetable parer, medium size.....	210.00
1 refrigerator, galvanized-iron lining, tiled floor, 5 feet, wire shelves.....	200.00



SERVING EQUIPMENT.

1 serving counter, top of hard impervious finish, length suitable to floor plan and type of menu, counter rail included.....	
1 steam table, 8 foot, Monel metal, 3 trays and 6 insets, containers included.....	¹ 325.00
1 ice-cream cabinet, with 2 cans, each 20 quarts.....	25.00
1 cocoa urn, 15-gallon, nickel plated.....	60.00
1 dish warmer, galvanized iron, 4 by 6 feet by 24 inches.....	80.00
1 water cooler.....	65.00
2 menu boards, with set of letters and figures, at \$7.50.....	15.00
1 dish truck, rubber-tired wheels.....	35.00
2 tables, for cashier and checker, plain oak, 4 feet, at \$10.....	20.00
2 chairs, for cashier and checker, plain oak, at \$4.75.....	9.50

SMALL EQUIPMENT, ALUMINUM.

1 stock pot, ² no faucet, covered, 60 quart.....	37.50
1 stock pot, no faucet, 40 quart.....	29.30
1 sauce pot, covered, loop handles, 34-quart.....	25.90
1 sauce pot, covered, loop handles, 25-quart.....	22.40
1 saucepan, 14-quart.....	13.20
2 saucepans, 6½-quart, at \$8.30.....	16.60
1 saucepan, 2½-quart.....	3.70
2 double boilers, inside pot 17½-quart, at \$28.90.....	57.80
1 double boiler, inside pot 4-quart.....	10.20
2 ladles, 3½-inch.....	3.00
6 trays, for cutlery, sandwiches, etc., 18 by 14, at \$2.50.....	15.00
1 pair salt and pepper, kitchen size.....	.50

ENAMEL WARE, WHITE.

2 pails, 14-quart, at \$2.....	4.00
3 pitchers, 1-gallon, at \$1.75.....	5.25
2 pitchers, one-half gallon, at \$1.30.....	2.60
4 bowls, for refrigerator, 11-inch, at \$1.10.....	4.40
4 bowls, for refrigerator, 10-inch, at 90 cents.....	3.60
1 colander, 12-inch.....	1.20

¹ Retinned copper table, with galvanized iron shelf, is about one-half this price.

² One double-jacketed steam kettle, 20 to 30 gallon, cast iron or copper, will be easier to handle if live steam is available. Copper, 20-gallon, \$115; cast iron, 30-gallon, \$77.50.

One upright vegetable steamer, 2 sections, will prove a valuable labor saver in cooking vegetables. Price, \$160.



STONEWARE.

2 bowls, 16-inch, for mixing, at \$2.25.....	\$4.50
2 bowls, 12-inch, for mixing, at 65 cents.....	1.30
2 bowls, 9-inch, at 30 cents.....	.60
3 butter jars, 10-inch, at 75 cents.....	2.25

WOODENWARE AND BRUSHES.

1 chopping bowl, 16-inch.....	.90
1 pastry board, 30 by 34 inches.....	1.00
2 meat boards, 24 by 18 inches, at 75 cents.....	1.50
1 rolling pin, 11-inch.....	.50
3 spoons, mixing, 18-inch, at 12 cents.....	.36
2 corn brooms, at \$1.50.....	3.00
3 scrub brushes, fiber, 8-inch, at 25 cents.....	.75
1 deck scrub, fiber, 10-inch.....	.50
1 hair broom, 12-inch block.....	3.35
6 vegetable brushes, 4-inch, at 5 cents.....	.30
1 towel rack, large, 3-screen.....	3.00
2 mop sticks, wrought iron, at 40 cents.....	.80
12 mop heads, cotton.....	4.65
1 salt box, 1-quart.....	.50

IRON, TIN, AND WIRE WARE.

*Iron,
Tin, and
Wire Ware*

2 roasting pans, Russia iron, to fit ovens, at \$1.85.....	3.70
6 cake pans, Russia iron, 12 by 12 inches, or to fit ovens, at 85 cents.....	5.10
8 muffin pans, heavy tin, 12 to a pan, at 95 cents.....	7.60
24 layer-cake tins, 10-inch, heavy tin, at \$1.05 a dozen.....	2.10
1 frying pan, heavy steel, 15-inch.....	.90
1 measure, tin, 1-quart.....	.40
1 measure, tin, ½-gallon.....	.65
1 measure, tin, 1-gallon.....	1.35
3 measuring cups, tin, ½-pint, at 20 cents.....	.60
2 garbage cans, galvanized iron, large size, at \$6.60.....	13.20
2 dust pans, japanned tin, at 45 cents.....	.90
2 scrub pails, galvanized tin, 12-quart, at 55 cents.....	1.10
1 beating bowl, 21-quart, retinned steel.....	3.10
1 dishpan, retinned steel, 40-quart.....	3.50
1 dishpan, retinned steel, 21-quart.....	1.60
1 dishpan, retinned steel, 14-quart.....	1.15
1 potato masher, large size, wire.....	.50
2 Dover egg beaters, large size, at 30 cents.....	.60
1 French wire whip, 20-inch.....	.75
1 grater, 4 by 9 inches.....	.20
1 Chinese strainer, 6-inch.....	2.80
1 purée strainer, heavy tin, 10-inch, and wooden masher.....	1.45
1 flour sifter, tin.....	.25
1 wire basket, for washing greens.....	1.40
1 spice tray, 6 cans, japanned tin.....	.75
12 supply cans, empty lard cans, 5-25 pound, may be used.....	
1 flour can, japanned tin, 100-pound.....	8.85
1 sugar can, japanned tin, 50-pound.....	3.95



TOOLS, HARDWARE, AND CUTLERY.

1 French cook's knife, 10-inch-----	\$2. 15
1 knife, 8-inch, "kitchen slicer," pointed blade-----	. 75
1 knife, 14-inch, "ham slicer"-----	1. 90
3 paring knives, at 25 cents-----	. 75
2 case knives, at 20 cents-----	. 40
1 spatula, 6-inch-----	. 55
1 spatula, 8-inch-----	. 90
1 steel, for sharpening knives-----	1. 00
1 chopping knife, steel-----	. 60
2 forks, large, 2 tined, steel, at 25 cents-----	. 50
2 spoons, basting or serving, 13-inch, aluminum, at 65 cents-----	1. 30
2 ice-cream servers, Gilchrist, at \$2-----	4. 00
2 biscuit cutters, tin, 2½-inch, at 10 cents-----	. 20
2 can openers, "Never slip," at 25 cents-----	. 50
1 pair shears, 9-inch-----	1. 35
3 tablespoons, nickel silver, at \$2 per dozen-----	. 50
3 teaspoons, nickel silver, at \$1 per dozen-----	. 25
1 meat saw, 18-inch-----	1. 60
1 knife grinder, grindstone, 6-inch-----	2. 55
1 screw driver, 8-inch-----	. 60
1 chisel-----	. 75
1 nail puller, large size-----	1. 25
1 hammer, heavy-----	1. 40



GLASS AND CHINA.

2 lemon reamers, juice rim, at 25 cents-----	. 50
30 dozen drinking glasses, "cupped-in" top, at \$1.20-----	36. 00
3 dozen salt shakers, nickel silver caps, at \$2.75-----	8. 25
3 dozen pepper shakers, nickel silver caps, at \$2.75-----	8. 25
4 dozen sherbet glasses, footed, at \$2.15-----	8. 60
5 dozen ramikins, 3½-inch, fireproof china, at \$1-----	5. 00
10 dozen custard cups, 3¼-inch, fireproof china, at \$1.25-----	12. 50
15 dozen soup bowls, 5¼-inch, vitrified hotel china, at \$2.70-----	40. 50
30 dozen cups, vitrified hotel china, at \$2.80-----	84. 00
30 dozen saucers, vitrified hotel china, at \$1.40-----	42. 00
5 dozen fruit saucers, 5-inch, hotel china, at \$1.30-----	6. 50
30 dozen plates, 8-inch, hotel china, at \$2.80-----	84. 00
30 dozen plates, 6-inch, hotel china, at \$1.85-----	55. 50

SILVER.

30 dozen teaspoons, heavy nickel silver, at \$1.35-----	40. 50
20 dozen dessert spoons, heavy nickel silver, at \$2.35-----	47. 00
20 dozen forks, heavy nickel silver, at \$2.35-----	47. 00

Silver

KITCHEN LINEN (ALL PIECES HEMMED).

3 dozen dish towels, 1-yard Union crash, red border, at 24 cents-----	8. 64
1 dozen dish cloths, ¼-yard Union crash, red border, at 24 cents-----	2. 88
1 dozen scrub cloths, ¼-yard Union crash, blue border, at 24 cents-----	2. 88



1 dozen towels, for pots and pans, "Russian Homespun," 3/4-yard, at 27 cents-----	\$2.43
1 dozen floorcloths, 1 yard, woven cord, at 25 cents-----	3.00
1 dozen dusters, 1 yard, cheesecloth, at 14 cents-----	1.68
3/4 dozen pot and pan holders, 10-inch square (4 layers)-----	1.50

Lunch-Room Standards

THE lunch room can be made a cheerful place where well-cooked food is neatly served without much noise or confusion. The interior finishes and furnishings, including the dishes used, should be planned with a view to making the room bright, attractive, and easily cleaned. High sanitary standards must be maintained, both in cleanliness of the room and in the preparation and serving of food. As in the other schools, already discussed, the social aspects of the lunch demand attention. The lunch period should be orderly and sociable, with table courtesies not neglected. The development of this spirit will depend upon the principal and staff of each school, as well as upon the director. Food standards must be kept high, with the best of cooking and attractive serving constantly maintained. Attractive serving of food is a real social service.

The director should know food values and food costs, but she must also know what well-cooked food is, and be able to serve only this in her lunch room. It is also just as important here as it is in the elementary schools that the health teaching be carried into the lunch room, and an effort made to maintain good standards of hygiene. The necessity for clean hands and leisurely eating of food should be stressed, and instruction in nutrition and food habits is a question of great importance for high-school girls and boys.

*The
toothbrush drill
naturally
follows the
school lunch*



Cafeterias in general have been justly criticised for their lack of restfulness, the evidence of haste throughout the meal, and for the necessity of forming in a long line for serving. With the comparatively simple menu of a school cafeteria there is little excuse for a very long serving counter, and the counter rail may be divided into sections, each with an entrance and exit, so that pupils wishing to buy only one or two dishes may go directly to the sections of the counter at which these are served without forming in line at the beginning of the counter. With a simple menu, trays may also be dispensed with, especially if the counter rail is divided into sections as above. This plan is followed very successfully in the Philadelphia high schools, and necessitates the buying of checks outside and the use of locked boxes, with a slot at each section, into which the servers drop the check before filling the order. In some schools, also, pupils have definite places at tables, thus avoiding much confusion, as well as encouraging the forming of social groups.



Relation to Home Economics Department

Supervision.—There are conflicting opinions at present concerning this relationship. In a large number of schools this department takes entire charge of the lunch work, and this would appear to be by far the wisest arrangement. Adequate provision should, of course, be made for supervision and labor. The home economics teacher, with the average school program, should not be asked to take this additional responsibility without competent assistance. When this work is carried on by the home economics department there is greater opportunity to make it a very real part of the work of the school, as the director may apply her

Home economics teacher should have competent assistance





specialized knowledge and correlate it with her teaching work. And here, again, it may be said that in the majority of schools having a home economics department only the girls receive any instruction in food values and other nutrition work. This teaching is needed by the boys also, and it should be given in the classrooms or at assembly periods by the home economics teachers or under their direction. The school nurse is always willing and anxious to cooperate, particularly in attention to individual cases where food habits are seriously in need of modification. If the principals themselves aid directly in promoting this educational work, it will stimulate very greatly the interest of all students. Plays, posters, etc., as stated before, may also make a distinct contribution, and the interest of the parents should be secured.

The home economics classes.—Where the home economics classes prepare and serve the lunch, there is sometimes a tendency to sacrifice the whole course to the lunch-room work, unless the menu is limited to one or two hot dishes. In some of the schools visited this was quite evident. Without a doubt advantage should be taken of this splendid opportunity to have the pupils prepare dishes in family quantities and to dispose of these in the lunch room. It is one way in which cooked food may be disposed of and it solves an economic problem for the cookery classes. This food must also meet the tests of good lunch-room standards. If the lunch room is part of the home economics department, this cooperation with the class work is more easily arranged. The director of the lunch in one high school, where the lunch is conducted by the home economics department, writes: "I do so emphatically feel that this arrangement is the most satisfactory one and some day will be the rule rather than the exception in all schools."



The domestic science pupils may prepare part of the food

The lunch-room director.—Where there are several teachers in the home economics department and the lunch room caters to large numbers, the teacher directly in charge of the lunch should be prepared to meet the problems of such administrative work, and so should have had previous experience fitting her for this. Many have not had this experience and often learn at great cost to themselves and sometimes to the lunch work while carrying this heavy responsibility. In Philadelphia, in Pittsburgh, and, no doubt in other places at least three months of practice work, as an assistant, are required before women with a home economics training are allowed to direct a lunch room. Practical knowledge of organization and of the principles of management are most necessary. Waste must be carefully controlled, employees must be supervised, all work must be arranged carefully, and this requires good executive ability. Teaching experience does not necessarily develop this.

*Lunch-room
Director*



The Labor Problem

How some schools are solving this.—Arrangements for labor will depend upon local conditions and upon the numbers catered to. As usually only one meal is served, part-time workers may be employed to advantage. From the Montreal High School comes this report:

I have found it advisable to have as small a staff as possible, helpers of a good class at a higher wage. My regular staff consists of first and second cook, who do their own pots and pans, stove, and kitchen floor; three maids, who take care of the lunch-room equipment and trays, serve behind the counter and wash dishes, and an extra helper, who comes in from 12

*Part-time
workers
may
be employed*



to 2 o'clock. About 600 persons are served in an hour and a half. Senior boys and girls do the checking and cashiering, in return for their lunch.

In the East Orange High School, where 1,000 people are served daily, there are 10 workers on an eight-hour schedule, and students do the checking and cashiering. Here there is a four-unit service at the serving counter. Highland Park (Mich.) High School employs one chef and three women on an eight-hour-day schedule for 260 pupils and 55 teachers. Students are employed for checking, cashiering, and for some of the serving. For a lunch room serving 100 to 150, two regular workers, a cook and an assistant, would be adequate, provided students assisted at serving time and that the menu was restricted to three or four prepared dishes.

*Student
Assistants*

Student assistants.—If much student help is employed, this is a problem in itself, as duties and hours must be arranged, remuneration in lunch or in money must be checked up and recorded, and substitutes are often necessary. Students should be held strictly responsible for being prompt, and, if possible, for sending substitutes in case of unavoidable absence. Definite regulations as to student help should be drawn up and each student provided with a copy. Duties for each position should be standardized and put in typewritten form, so that verbal instructions may be minimized when changes in student help are made. Otherwise, student labor may prove a very troublesome question.

*Schedules of
Work*

Schedules of work.—For the regular staff, duties should also be outlined in detail and schedules of work arranged with considerable thought. Definite instruction and directions are an important part of the organization, and these, with time schedules and duties, will be much more effective if made available in typewritten



*Duties
should be
standardized*

or printed form. This is particularly helpful if quite a number of workers are employed, but is a simple matter when there are only one or two paid workers. Weekly conferences with employees, to discuss informally standards and plans for the following week, are helpful.

Serving the Lunch



When large numbers are served, they should come in relays to prevent crowding or waiting in line. Where numbers are smaller and all come at once, a successful plan is to have the various rooms take turns in leading the line. Staff members by their presence alone should control any tendency to disorder or pushing.

Definite counter arrangements should be decided upon and adhered to, so that the same sequence in types of foods may be maintained. Hot foods take longer to serve, and if given first place tend to "hold up" the line. Again, if served last they will be hotter when eaten. If the counter rail is broken into sections, as described above, the sequence of foods on counter is no special problem. It is better to place cutlery and napkins at end of line.

The counter should not be crowded with food, as many cafeteria counters are. Tiers of shelves and drawers that pull out easily, if arranged under the counter, provide space for a large number of individual orders ready for service. From these the counter is kept supplied, but servings are allowed to stand only a very short time. This is a sanitary measure as well as a more artistic arrangement.

The servers should be immaculate in appearance, with aprons, and at least washable waists, if not an entire cotton uniform. This latter is more difficult to control

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*Servers
should be
immaculate
in appearance*





with student helpers, but for these ample aprons should be absolutely required. Men or boys should be supplied with white coats. These servers contribute much to the spirit of the lunchroom through their immaculate uniform, courtesy, alertness, and cheerfulness in serving. Rapid service is usually necessary, and neat service of hot foods is most important. All servings, of course, should be carefully regulated as to size.

The room may be cleared by having all pupils take their trays to a well-located place, or by having these collected by the workers. If trucks are used, they should be inconspicuous and should move noiselessly, and no noisy scraping of dishes should be tolerated. Some one person may be responsible for the general appearance of the dining room and the work of clearing away, which should be done quietly and neatly.

Where a number of teachers come to the lunchroom, it is well to make special arrangements for them. In many schools a separate room with either a separate serving table or waitress service is provided. In some the teachers are allowed to pass along behind the serving table, but this is not desirable for either servers or teachers; as it distracts the former and interferes with counter service.

Checking and Cashiering

Where the menu is simple the checking presents no difficulties. If it is more varied, the checker must become familiar with the prices and be on the alert for double orders and any extras. As stated above, sometimes metal or celluloid checks are sold outside the classroom and handed in at the counter. Unless these are washed after each meal, they are not highly sanitary. Paper checks are most satisfactory when checking and

*Special
arrangements
for
teachers*



cashiering are done in the lunchroom. These should be numbered consecutively and the first and last number in the lot given to the checker noted. The unused ones are returned, and a note made of the number used; an indelible pencil should be used to mark the amount on the check. The familiar restaurant check, with the amounts printed in rows on it, beginning with a possible minimum and ending with a possible maximum, may have the proper amount punched and is satisfactory. In the event of a second serving this check is punched at the higher figure. It is not wise to do the cashiering and checking at one point or to have the same person do both. The best location for the cashier's desk is near where the pupils leave the room.

These are discussed rather fully on pages 29-31 with reference to elementary school lunches. Practically the same methods apply to the business administration of the high school and normal school lunch. In many schools the commercial department takes over the work of keeping records and all accounts, and this appears to be a most satisfactory and logical arrangement.

These questions have also been discussed, though rather briefly, in connection with the elementary schools on page 27. This whole consideration of lunches *does not attempt to outline the organization of large city systems, as these are distinctly a problem by themselves*, particularly in reference to their business administration.

*Accounts
and
Records*

*Buying and
Storing of
Supplies*

The Menu

The menu may be very simple. In some schools only soups and cocoa are served, to supplement the lunch brought from home, but usually one other hot dish at least is included, and sandwiches, rolls, bread, and

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*Supplement
home
lunch*



muffins are easy to provide. The wisest rule is to begin with a modest form of menu and progress slowly to a more pretentious one. It is well to remember that labor and equipment requirements, marketing and accounting, and all incidental details are controlled by the menu.

The character of the menu and the excellence of the cooking are the greatest factors in promoting any educational work carried on in the lunch room. The pupils should be encouraged, in every way possible, to choose wisely and to taste dishes unfamiliar to them. It is difficult to overcome food aversions, but once a dish is tasted and found delicious, this alone proves a strong incentive for taking it again and persuading others to "try it." The caloric value of each serving may be indicated on the menu board, but calories are not the only consideration. Building material and "vitamines" are needed as well as fuel, and vegetables and milk dishes should have prominent places on the menu. Tea and coffee should of course not appear.

For hearty boys a fairly concentrated diet is desirable, and large volumes of fluid should not be permitted with meals. Desserts, like baked Indian meal or poor man's pudding (rice), where milk is concentrated with the cereal in baking, are ideal for growing boys. Pastry should be used very sparingly. Custard or prune pie, having but one crust and conveying milk, eggs, and fruit, with a minimum of pie crust, are examples of the best kinds. Cake may be served as a dessert and should never be rich.¹

Heavy dishes are out of place, as the pupils are usually returning to the classroom.

A very large number of schools report that "potatoes and gravy" are the popular dish. There is a grain of comfort in knowing that usually this "gravy" is a sauce made from soup stock and so not greasy and heavy. In many of the menus there is a lack of variety

*Vegetables
should
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¹ Dr. M. S. Rose, Feeding the Family.



in the vegetables offered. In several sets of menus received, potatoes are the only vegetable served. Sometimes potato soup and mashed potatoes appear on the same menu.

Sometimes a "plate lunch" is offered at a special price, consisting of a small portion of meat or meat substitute with a generous serving of vegetables. In many localities it may be difficult to encourage the pupils to eat vegetables. The appearance of a dish on the counter has much to do with its sale. Food served in individual ramikins or custard cups is more attractive than when served from a baking pan and has stimulated the sale of suitable foods very considerably in some schools. Milk and egg desserts, if served in sherbet glasses, will be accepted more readily. If to this is added a piece of cherry, brightly colored jelly, or a little whipped cream, even a prosaic rice custard will "go" rapidly. The use of artificially flavored jelly powders is not advisable.

Sandwiches are popular and serve their purpose if the filling is really nutritious and if Graham or whole wheat bread is often used. They add greatly to the work of food preparation, however, thus making their use sometimes questionable. They are also one type of food that may be easily brought from home. One school reports that sandwiches are served from time to time to demonstrate a good filling, and recipes are given for this, so that pupils may be encouraged to bring these in their lunch boxes later.

Keep the menu simple. Even in a large lunch room it is not advisable to have a long one. It is only confusing to the pupils and also makes a variety from day to day less possible. The menu therefore loses its "freshness" and interest, much as the long hotel menu does. *A long menu also raises the cost of preparation* and is thus unwise from an economic standpoint.



In all references given on page 60 only tested recipes are included, so that these may be used in menu making with confidence.

Some Typical Dishes

1. Soups—Cream of vegetable; chowders; split-pea, bean, and tomato purées, and sometimes a vegetable soup with a meat stock.

2. Hot dishes serving as meat substitutes or “meat extenders.”

Egg dishes.—Scalloped eggs and peas; scalloped eggs with cheese; creamed eggs; fresh spinach with egg; scrambled eggs with minced ham or bacon; scalloped ham with eggs and rice; creamed potatoes au gratin; corn à la southern.

Fish.—Scalloped fish; fish cakes; fish cutlets; salmon loaf.

Macaroni and rice dishes.—Macaroni and cheese; creole spaghetti; macaroni and tomato sauce; spaghetti and tomato sauce.

Other dishes.—Rice and cheese; scalloped potatoes with bacon; Spanish rice; shepherd’s pie; macaroni and chicken pie; stew with vegetables; mashed potatoes with tomatoes and peas; creamed chipped beef on toast.

3. Vegetable dishes (not included above): Creamed vegetables, scalloped vegetables, buttered vegetables.

4. Salads: Fruit, vegetable, egg, and cottage cheese.

5. Fruit: Raw, stewed, or baked.

6. Prepared desserts: Ice creams; rice and other cereal puddings; brown betty; cottage pudding; tapioca and apple or other fruit; gingerbread and plain cake; fruit



cup. Custards: Baked custard; jellied custard (Spanish cream); tapioca custard; cornstarch custard; prune whip and custard sauce.

7. Beverages: Milk and cocoa.

8. Candies, if sold, should occupy an inconspicuous place on the counter.

SOME SAMPLE MENUS.

Menus used in a school serving 150 pupils.

1. Scalloped eggs with peas.....	\$0.08
Vegetable salad.....	.08
Eye bread.....	.01
Butter.....	.03
Apple sauce and cream.....	.08
Cocoa.....	.06
Milk.....	.06
2. Split-pea soup.....	.08
Fresh spinach timbales.....	.08
Bran muffins.....	.02
Rolls.....	.02
Butter.....	.03
Fruit cup.....	.08
Cocoa.....	.06
Milk.....	.06
3. Creole spaghetti.....	.08
Buttered beans.....	.05
Corn muffins.....	.02
White and brown bread.....	.02
Butter.....	.03
Pineapple delicious.....	.08
Cocoa.....	.06
Milk.....	.06

Menus used in a school serving 250-300 pupils.

1. Vegetable soup.....	.05
Minced ham with scrambled eggs.....	.10
Scalloped corn and tomatoes.....	.05
Salmon loaf.....	.05
Rolls.....	.02
Brown bread.....	.01
Butter.....	.02
Cottage pudding, chocolate sauce.....	.06
Vanilla ice cream.....	.06
Milk.....	.05
Cocoa.....	.05



2. Mongol soup	\$0.05
Shepherd's pie .....	.06
Winter squash .....	.05
Beet and celery salad .....	.06
Bran muffins .....	.02
Bread .....	.01
Butter .....	.02
Baked custard .....	.06
Fruit jelly, whipped cream .....	.06
Milk .....	.05
Cocoa .....	.05
8. Cream of lima bean soup .....	.05
Spaghetti with cheese .....	.06
Buttered carrots and peas .....	.05
Scalloped potatoes with bacon .....	.06
Corn muffins .....	.02
Bread .....	.01
Butter .....	.02
Chocolate ice cream .....	.06
Tapioca and apple pudding .....	.06
Milk .....	.05
Cocoa .....	.05

Menus used in a school serving 1,000 pupils.

1. Corn chowder .....	.05
Hot roast beef sandwich .....	.15
Scalloped eggs and peas .....	.10
Buttered carrots .....	.05
Peanut butter and raisin sandwich .....	.05
Waldorf salad .....	.15
Rice pudding .....	.05
Homemade cake .....	.05
Banana and apricot ice cream .....	.10
Milk .....	.05
Cocoa .....	.05
2 rolls and butter .....	.05
2. Cream of celery soup .....	.05
Baked ham and spinach .....	.15
Macaroni and tomato sauce .....	.05
Succotash .....	.05
Cottage cheese and nut sandwiches .....	.05
Mixed fruit salad .....	.15
Baked apple .....	.05
Graham muffins and butter .....	.05
Milk .....	.05
Cocoa .....	.05



A FEW SELECTED RECIPES.

Cocoa (25 servings).

- | | |
|------------------|-----------------|
| ½ cup cocoa | 3½ quarts milk |
| ¼ to 1 cup sugar | ¼ teaspoon salt |
| 1 pint water | |

Mix the cocoa, sugar, and water together and boil 5 minutes. Add the milk and cook in a double boiler for 10 minutes or place the kettle on an asbestos mat over gentle heat. Beat with a Dover beater until frothy.

Total calories, 4,000.

Calories per serving, 160.

Corn Chowder (25 servings).

- | | |
|-------------------------|---------------------|
| 3 quarts diced potatoes | 3 (No. 3) cans corn |
| 3 slices salt pork | 1 ounce flour |
| 2 onions (medium) | 3 tablespoons salt |
| 2 quarts boiling water | ¼ pound butter |
| 3½ quarts milk | Pepper |

Cut the pork into small cubes. Cook slowly until light brown. Add onions and cook slowly 5 minutes. Drain off fat. Add to onions the diced potatoes and water and cook until potatoes are soft. Add corn and cook a few minutes longer. Make a white sauce using the fat tried out from pork. Add to corn and potatoes and serve chowder over buttered crackers in soup bowl.

Total calories, 7,920.

Calories per serving, 316.



Cream of Pea Soup (25 servings).

- | | |
|---------------------|-----------------|
| 1 (No. 10) can peas | 1 gallon milk |
| 1 tablespoon sugar | ½ cup butterine |
| 2 quarts water | ½ cup flour |
| 1 teaspoon salt | |

Boil peas 5 minutes and rub through sieve. Melt butter, stir in flour, and add peas, water, and milk, and cook until it thickens. Season to taste and cook gently 10 minutes.

Total calories, 4,577.

Calories per serving, 183.

Mongol Soup¹ (100 servings).

- | | |
|---------------------|-----------------------------|
| 4 pounds split peas | 1½ quarts shredded cabbage |
| 26 quarts water | 1½ quarts sliced carrots |
| 1 pound onions | 6 ounces salt |
| ½ pound celery tops | 1½ pounds butter substitute |
| 5 quarts tomatoes | 1½ pounds flour |

Soak peas overnight, drain, add 15 quarts water, onions, salt, and celery. Cook 2 hours, add tomatoes, and cook one-half hour longer. Press through sieve. Cook cabbage and carrots until tender in remaining water, combine two mixtures. Thicken and season, add milk and reheat.

Total calories, 19,639.

Calories per serving, 196.

¹ "One Hundred Portion War Time Recipes," B. E. Nettleton.

Carrots and Peas (50 servings).

1 (No. 10) can peas ½ pound butter
4 pounds diced carrots 1 tablespoon salt
Pepper

Arrange vegetables in alternate layers and boil or steam until tender.
Drain and add butter and seasoning.

Total calories, 3,366. Calories per serving, 67.



Vegetable Hash¹ (100 servings).

14 pounds potatoes 2 pounds ground onions
4½ pounds carrots 4½ pounds beets
4½ pounds turnips 1 pound bacon fat
4½ pounds cabbage Seasoning

Cook all vegetables but onions. Drain and mix with onions and seasoning. Add fat and some water in which vegetables were cooked, if moisture is needed. Put into buttered baking dishes and bake until brown in a hot oven.

Total calories, 13,128. Calories per portion, 131.

Spanish Soup¹ (100 servings).

6½ quarts baked beans 7 quarts tomatoes
1½ pounds onions 4 ounces salt
1 pound celery tops 1½ pounds flour
1½ pounds butter substitute

Cook all vegetables, in water to cover, one hour. Thicken and season and strain through a sieve.

Total calories, 16,185. Calories per serving, 162.

Succotash (35 servings).

1 (No. 10) can corn ½ pound butter
1 quart dried lima beans Salt and pepper

Soak beans overnight. Drain, add boiling water, and cook until tender. Drain and add corn. Heat slowly; add butter and seasoning.

Total calories, 6,300. Calories per serving, 180.

Kidney Bean Stew (25 servings).

2 quarts red kidney beans 1 gallon water
1 gallon tomatoes ½ pound butterine
1 quart chopped celery 4 quarts diced potatoes
2 cups sliced onion Salt and pepper

Soak beans over night. Drain and add tomatoes, celery, onions, and water. Simmer slowly until beans are nearly tender. Add potatoes and butterine and cook until potatoes are soft.

Total calories, 2,266. Calories per serving, 116.

¹"One Hundred Portion War Time Recipes," B. E. Nettleton.



*Corn Pudding*¹ (50 servings).

4 (No. 3) cans corn	4 ounces butter
2 tablespoons sugar	$\frac{1}{2}$ pound flour
1 tablespoon salt	2 quarts milk
8 eggs	

Add beaten yolks, sugar, and salt to corn. Make a sauce of butter, flour, and milk, and add corn mixture. Fold in stiffly beaten egg whites. Pour into greased baking dishes and bake in a moderate oven.

Total calories, 6,473.

Calories per serving, 129.

*Savory Vegetable Loaf*² (100 portions).

10 pounds dried beans	12 eggs
4 pounds bread crumbs	2 ounces salt
1 pound bacon fat	4 quarts stock from beans
Pepper	

Soak beans over night, drain and cook until tender. Drain, saving the stock. Beat eggs and mix all ingredients, adding more stock if needed. Put mixture into buttered pans and bake one-half to one hour in a moderate oven. Serve with tomato sauce.

Total calories, 27,082.

Calories per portion, 271.

Creole Spaghetti (25 servings).

$\frac{1}{2}$ quart spaghetti	1 teaspoon salt
1 quart stewed tomatoes	$\frac{1}{2}$ cup butterine
1 cup sliced onion	$\frac{1}{2}$ cup flour
2 pounds Hamburg steak	1 cup grated cheese

Cook spaghetti in 3 quarts boiling salted water. Drain and rinse in cold water. Brown onion in butterine, stir in flour, and add tomato pressed through sieve. Stir until thickened. Stir in cheese and add to spaghetti. Sauté steak until slightly brown, add to spaghetti mixture and bake 15 to 20 minutes.

Total calories, 3,427.

Calories per serving, 137.

Scalloped Eggs with Peas (25 servings).

1 $\frac{1}{2}$ quarts milk	15 eggs
$\frac{3}{4}$ cup butter or butterine	2 (No. 10) can peas
$\frac{3}{4}$ cup flour	2 cups bread crumbs
1 $\frac{1}{2}$ teaspoons salt	Pepper

Cook eggs hard, and boil the peas for 10 minutes. Prepare a white sauce with milk, flour, butter, and seasoning. Add sliced eggs and peas. Cover with lightly buttered crumbs and bake until crumbs brown.

Total calories, 4,906.

Calories per serving, 196.

¹ "Institution Recipes," Emma Smedley.

² "One Hundred Portion War Time Recipes," B. E. Nettleton.



*Macedoine Salad.*¹

1 quart diced carrots	1 quart diced potatoes
1 quart peas	6 heads lettuce
1 quart diced celery	French dressing
1 quart diced beets	Mayonnaise

All vegetables are cooked. Marinate them with French dressing and let stand one hour. Mix lightly with mayonnaise and serve on lettuce leaves. Any cold cooked vegetables may be used in this way.

Total calories, 6,977. Calories per portion, 140.

¹ "Institution Recipes," Emma Smedley.

Useful References

Reference.	Author.	Publisher.	Contents.
1. Hot Lunch Project (bulletin).		Michigan Agricultural College Extension Division, 1919.	The school lunch in rural schools as a project for the boys' and girls' clubs. It includes a study of equipment, organization, book-keeping, 20-portion recipes. Well illustrated.
2. School Lunches (bulletin).		Agricultural College Extension Service, Ohio University, 1917.	A series of 20 lesson leaflets, giving in detail the preparation of different types of food for rural school lunches and the lunch box.
3. The School Lunch.	Geraldine Hadley.	Extension Department, Purdue University, La Fayette, Ind.	An excellent reference on the rural school lunch.
4. Suggested Plans for Serving of Lunches in Centralized Schools of Ohio (bulletin).	T. E. Kaufman.	Extension Department, Purdue University, La Fayette, Ind., 1918.	Study of equipment, management; 50-portion recipes.
5. Cho-Cho and the Health Fairy.	Eleanor Glendower Griffith.	Child Health Organization, 166 Fifth Ave., New York City, 1919.	Fairy stories which will delight the children; attractively illustrated; the question of healthful diet is presented in a fascinating way.



USEFUL REFERENCES—CONTINUED

*Useful
References*

Reference.	Author.	Publisher.	Contents.
6. Hot Lunches for Rural Schools, Parts I and II (bulletins).	Mary B. Richardson.	Iowa State College of Agriculture Extension Department, 1916.	Twenty-six lessons in food preparations suitable for giving in rural schools in connection with the preparation of the hot lunch. Illustrated.
7. The Child Health Alphabet.	Mrs. Frederick Peterson.	Child Health Organization, 1918, 156 Fifth Ave., New York City.	Rhymes for the children giving "the rules of the health game."
8. The Rural School Luncheon (bulletin).	F. A. Twiss.	Department of Education, Regina, Saskatchewan, Canada, 1918.	A detailed study of the subject in regard to equipment, recipes, and organization. A very good type of storage cupboard is shown here.
9. Rural School Lunch (bulletin).	N. W. Farnsworth.	Webb Publishing Co., St. Paul, Minn., 1916.	The equipment used is well illustrated. A good plan of management is given, and recipes, foods and teachers' problems are discussed.
10. The Demonstration and Its Application (bulletin).	Lucy Wood Collier.	Child Health Organization, 156 Fifth Ave., New York City.	Description of a school-lunch experiment carried out chiefly for its news value for a newspaper campaign to arouse interest in school lunches.
11. The Hot Lunch Project.		Extension Service, University of Nebraska, College of Agriculture.	A very complete set of mimeographed study sheets sent out to boys' and girls' clubs giving the details of school-lunch management. Physiology playlet, "How Joe's Lunch Disappeared," is included.
12. A Penny Lunch (booklet).	Sarah W. Maury, Lena L. Tachau.	The Authors, 1915.	Directions for starting and conducting a "penny lunch," according to plans developed by the authors in the Louisville schools.
13. Handbook of the Association Cafeteria.	Blanche Geary.	National Board, Y. W. C. A., New York City, 1917.	A valuable book for those starting a school cafeteria. It includes an account of essentials in organization, equipment, service, menus, and cleaning work.
14. Tested International Recipes (bulletin).	May B. Van Arsdale and Day Monroe.	Teachers' College, New York City, 1917.	A valuable collection of recipes for foreign dishes, tested in the department of foods and cookery, Teachers' College.
15. Food for School Boys and Girls (bulletin)	Dr. Mary S. Rose.	Teachers' College, New York City, 1914.	A study of the food requirements of school girls and boys.



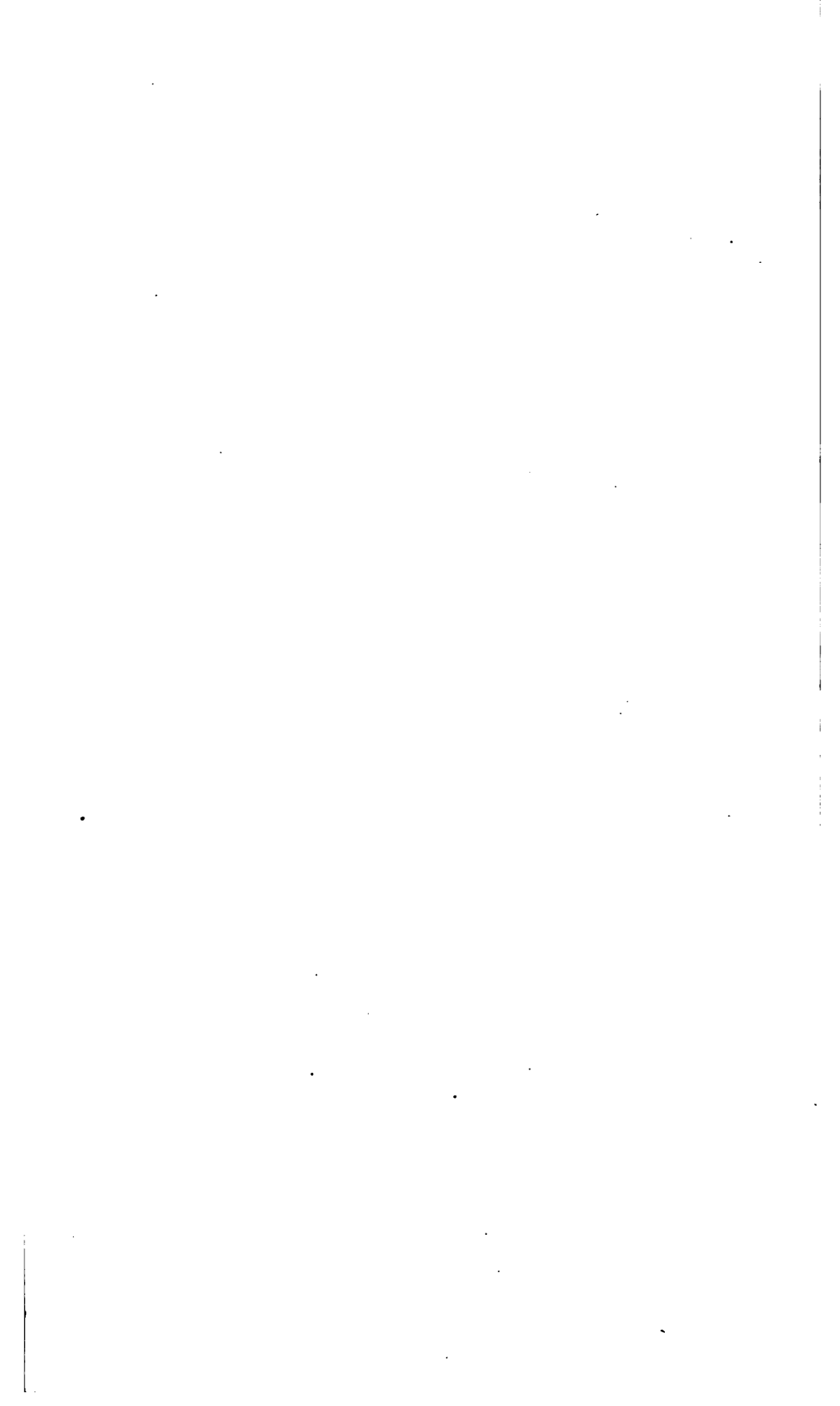
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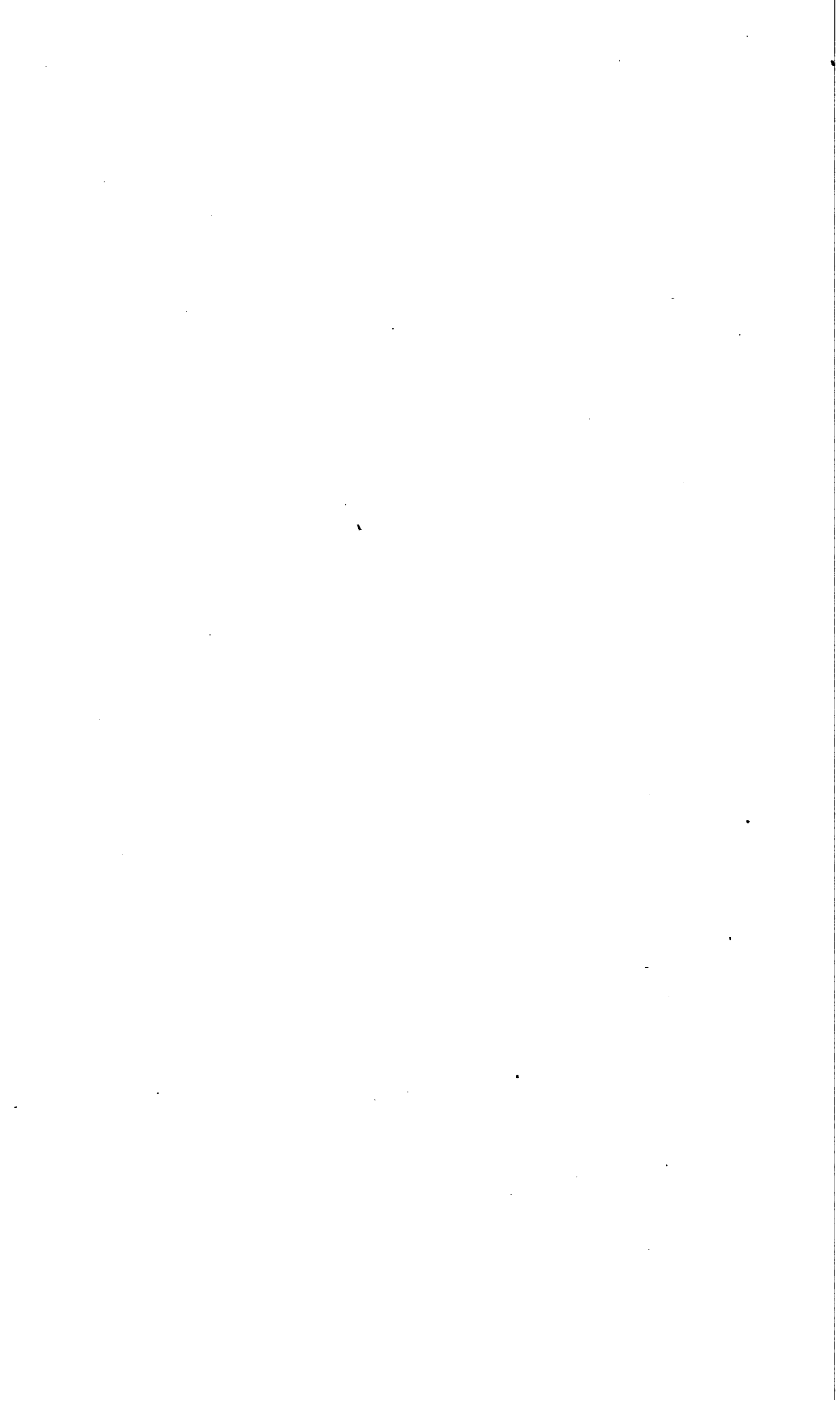
USEFUL REFERENCES—CONTINUED

Reference.	Author.	Publisher.	Contents.
16. Diet for the School Child.	Lucey H. Gillett.	Bureau of Education, Washington, D. C., 1919.	Well-presented facts relating to children's food; attractively illustrated for the children.
17. Feeding the Family.	Mary S. Rose.	Macmillan Co., New York City.	This book presents in a very practical way the nutritive values of foods, the making of the daily menus, the wise expenditure of money for foods; a valuable guide to the housekeeper and teacher.
18. Newer Knowledge of Nutrition.	E. V. McCollum.	Macmillan Co., New York City, 1918.	Gives results of recent research work on value of certain foods.
19. School Feeding.	Louise S. Bryant.	Lippincott Co., Philadelphia, 1913.	History of this movement in all countries.
20. Everyday Foods in War Time.	Mary S. Rose.	Macmillan Co., New York City, 1918.	This book is equally suitable as a reference in peace time and should prove invaluable to the busy teacher who may not always have the time to consult a book giving a more extended treatment of the subject.
21. Institution Recipes. ¹	E m m a Smedley.	The author, 6 East Front St., Media, Pa., 1919.	A complete collection of tested recipes, many of which are most suitable for the school cafeteria. The caloric and protein value of each recipe is given and nearly all recipes are made out in 150 portion quantities.
22. One Hundred Portion War Time Recipes.	Bertha E. Nettleton.	Lippincott Co., Philadelphia, 1918.	These recipes are equally suitable for peace time and have all been well tested in school lunchroom work. Rice flour and cornstarch are used for thickening, but in each recipe the combined weight of these in wheat flour may be used instead.
23. Recipes and Menus for Fifty.	Frances L. Smith.	Whitcomb & Barrows, Boston, Mass., 1918.	An excellent collection of tested recipes suitable for school lunches.
24. More Recipes and Menus for Fifty.	Frances L. Smith.	Whitcomb & Barrows, Boston, Mass., 1918.	

¹ Miss Smedley will soon publish a book on "School Lunchroom Management," with particular reference to elementary and high school lunches.







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